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ROBOTS

POWERFUL

TECHNOLOGY

MIT ENGINEERS HAVE HIGH
HOPES FOR CHEETAH ROBOT

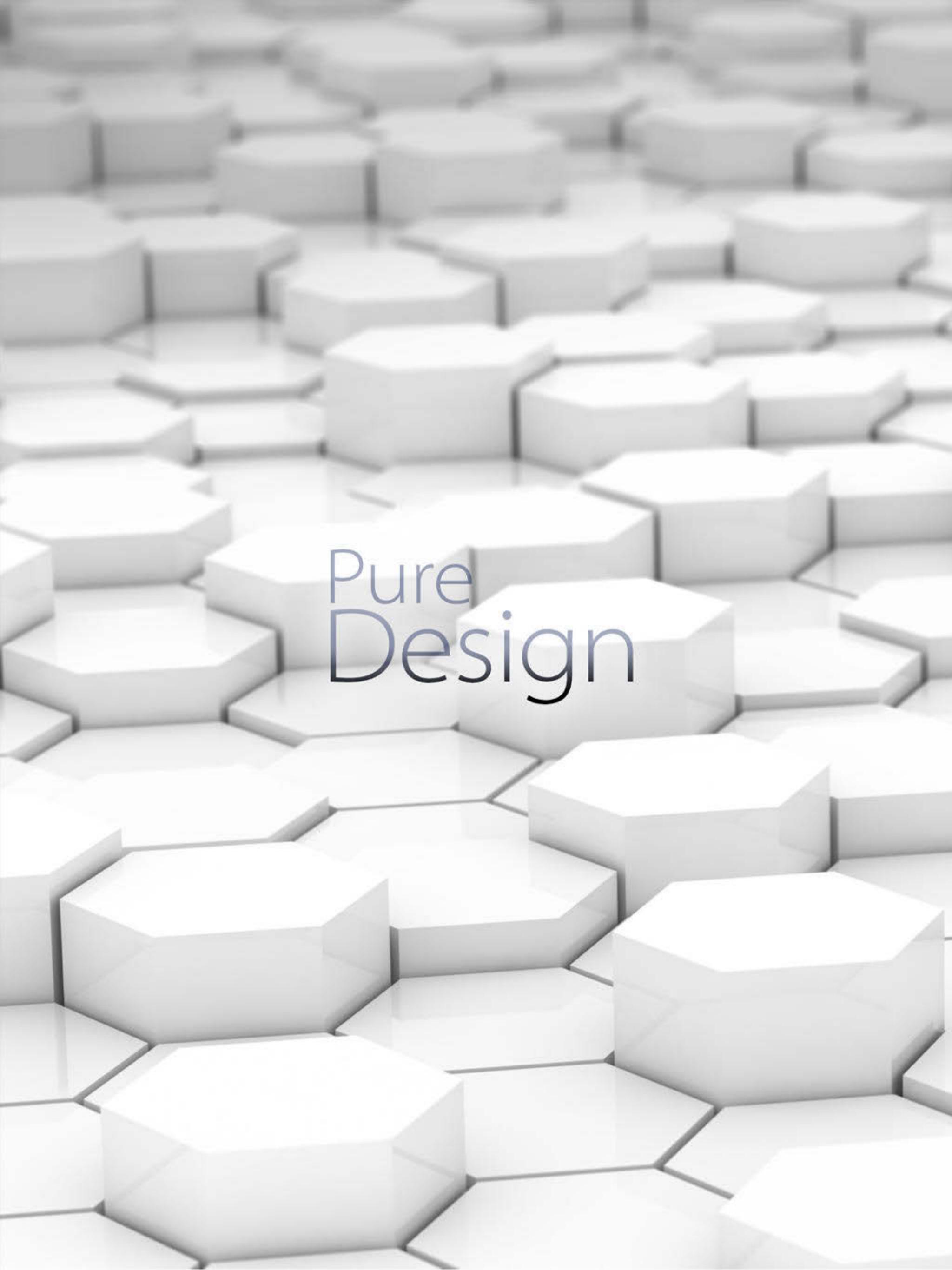
JENNIFER ANISTON

"HONEST, STURDY
PERFORMANCE"

STAR TURN IN 'CAKE' SPARKS
ACADEMY AWARD TALK



Apple HomeKit Home Automation



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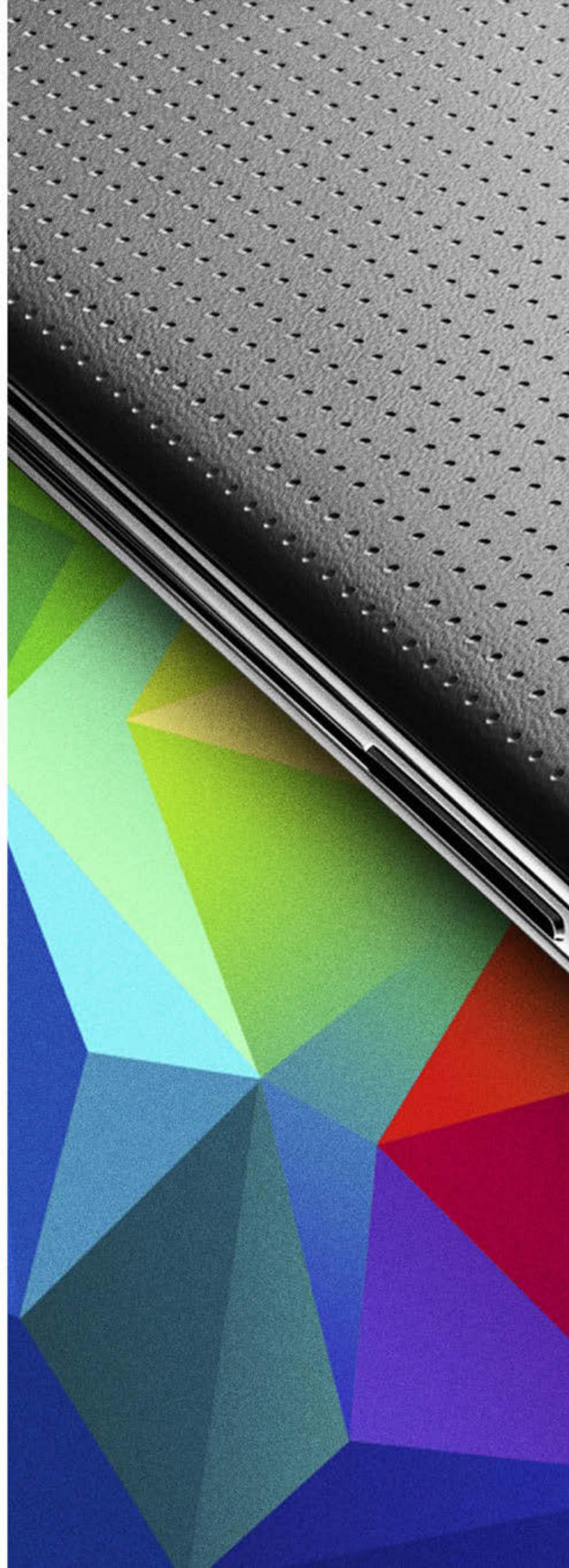
SAMSUNG KEEPS MOBILE CHIEF DESPITE PROFIT PLUNGE

Samsung retained the chief of its mobile business in an annual executive reshuffle announced Monday despite a steep decline in mobile profit.

The extent of this year's reshuffle was the smallest in recent years, showing how Samsung is opting for stability in its executive ranks in the absence of chairman Lee Kun-hee who was hospitalized in May after a heart attack.

Samsung spokesman Lee June said that Shin Jong-kyun, president of mobile communications at Samsung Electronics Co., has made a significant contribution to Samsung's rise to world's top mobile phone maker.

Some analysts expected Shin to step down to take responsibility for Samsung's failure to respond quickly enough to the rise of Chinese smartphone makers and Apple's new iPhones. Samsung's third-quarter mobile profit fell to just one quarter of the previous year's level.





SAMSUNG

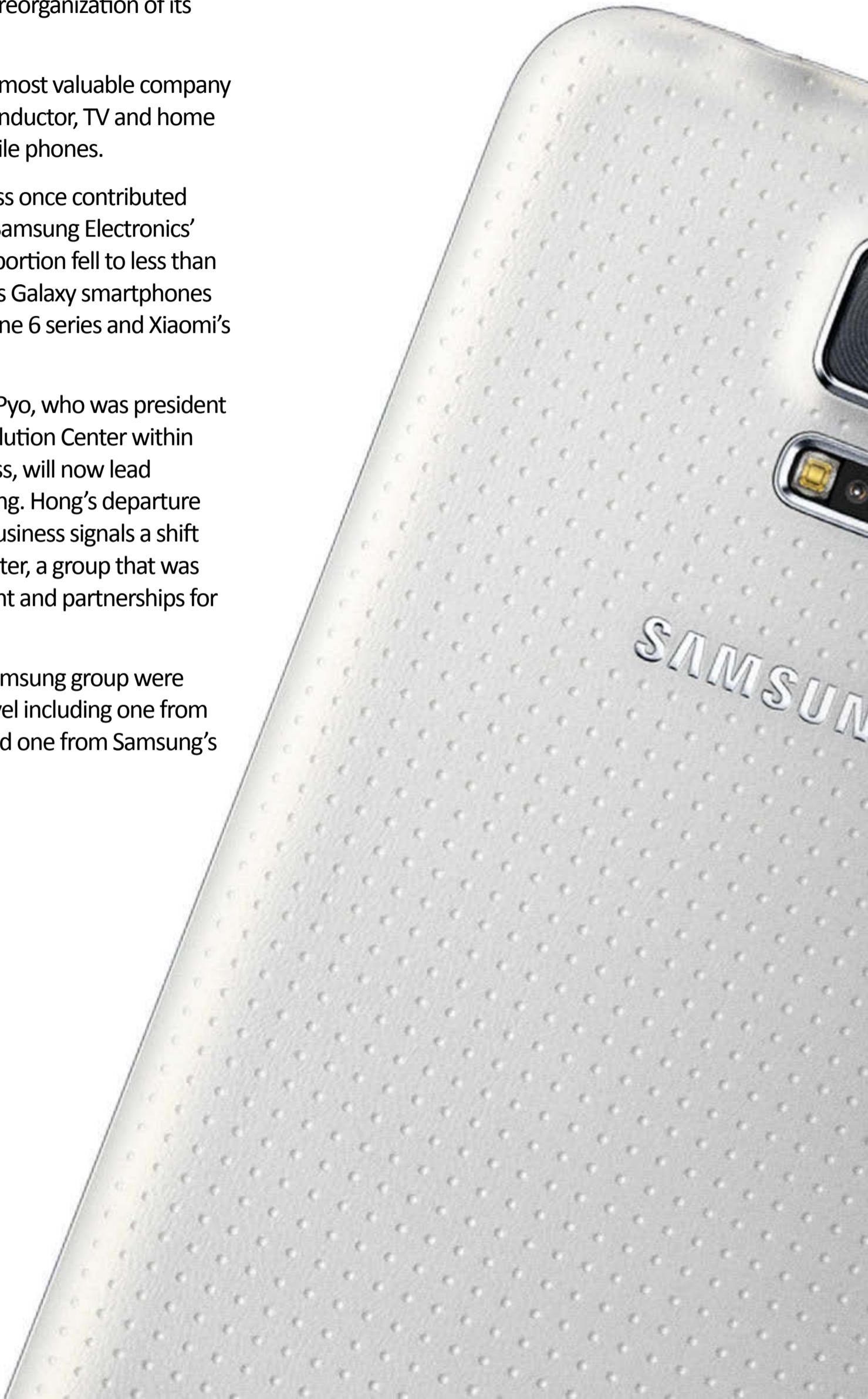
But the size of the mobile team that Shin will continue to lead is likely to become much smaller than before. The company is scheduled to announce next week a reorganization of its business divisions.

Samsung is South Korea's most valuable company with businesses in semiconductor, TV and home appliances as well as mobile phones.

The mobile phone business once contributed more than 60 percent of Samsung Electronics' overall profit but that proportion fell to less than half in the latest quarter as Galaxy smartphones lost popularity to the iPhone 6 series and Xiaomi's cheap phones in China.

Samsung said Hong Won Pyo, who was president and head of the Media Solution Center within Samsung's mobile business, will now lead Samsung's global marketing. Hong's departure from Samsung's mobile business signals a shift in the Media Solution Center, a group that was set up to lead development and partnerships for apps for Galaxy phones.

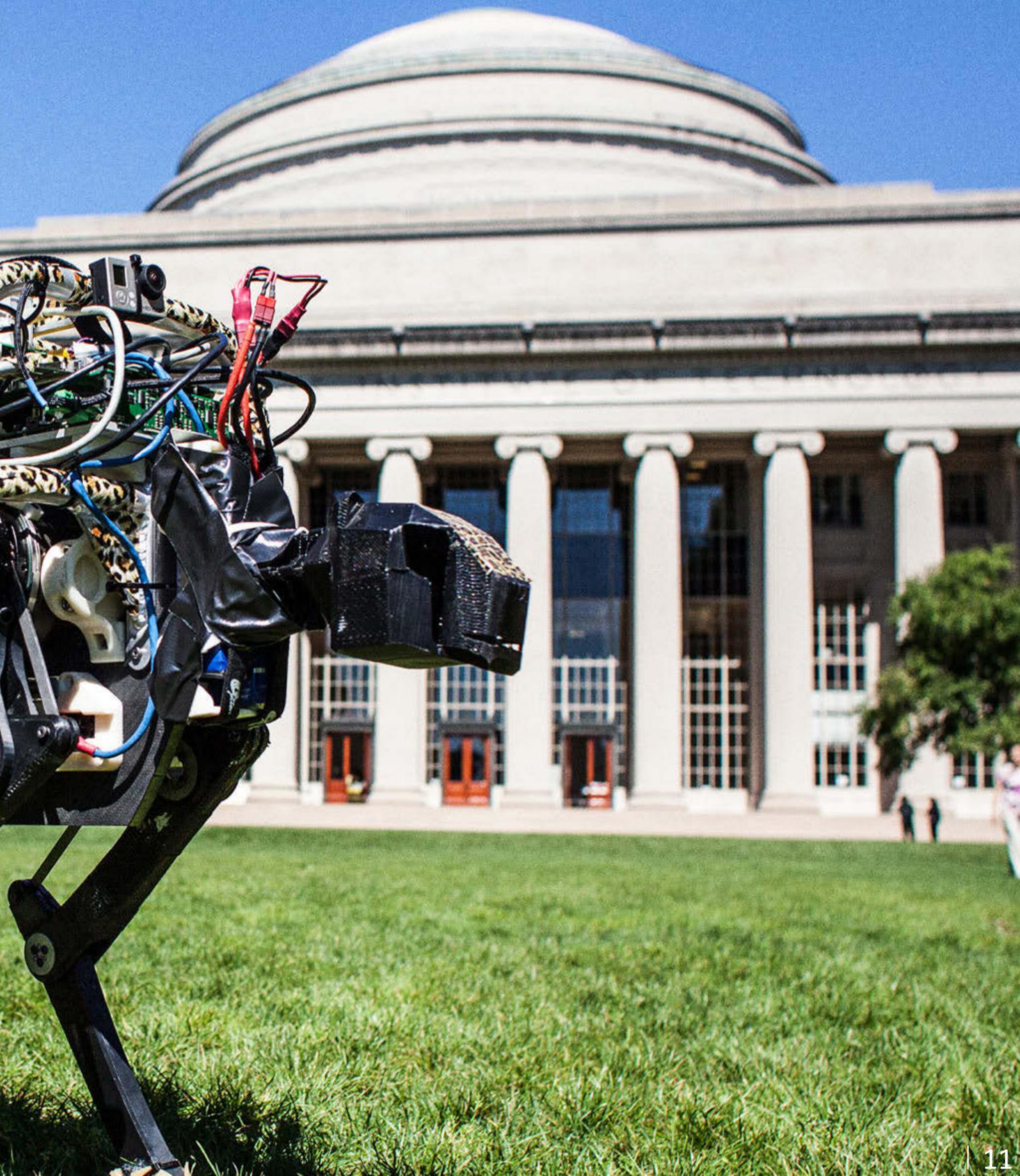
Three executives in the Samsung group were promoted to president level including one from Samsung's TV business and one from Samsung's memory chip business.







MIT ENGINEERS HAVE HIGH HOPES FOR CHEETAH ROBOT



It's a robot unlike any other: inspired by the world's fastest land animal, controlled by video game technology and packing nifty sensors - including one used to maneuver drones, satellites and ballistic missiles.

The robot, called the cheetah, can run on batteries at speeds of more than 10 mph, jump about 16 inches high, land safely and continue galloping for at least 15 minutes - all while using less power than a microwave oven.

It's the creation of researchers at the Massachusetts of Technology, who had to design key elements from scratch because of a lack of or shortcomings in existing technology.

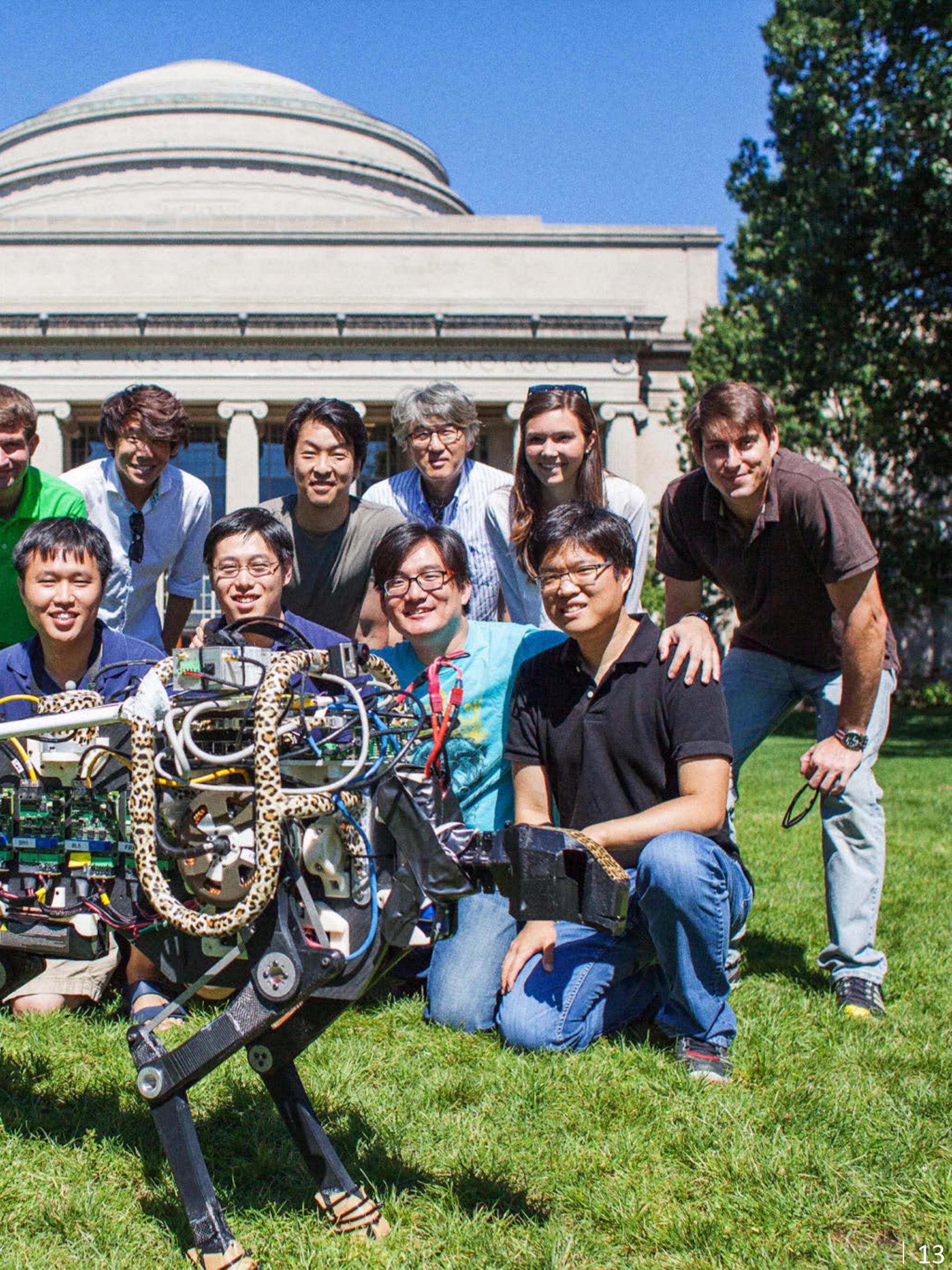
That includes powerful, lightweight motors; electronics that control power for its 12 motors; and an algorithm that determines the amount of force a leg should exert during the split second that it spends on the ground while running - the key to helping the robot maintain balance and forward momentum. An onboard computer organizes data from various sensors and sends commands to each motor.

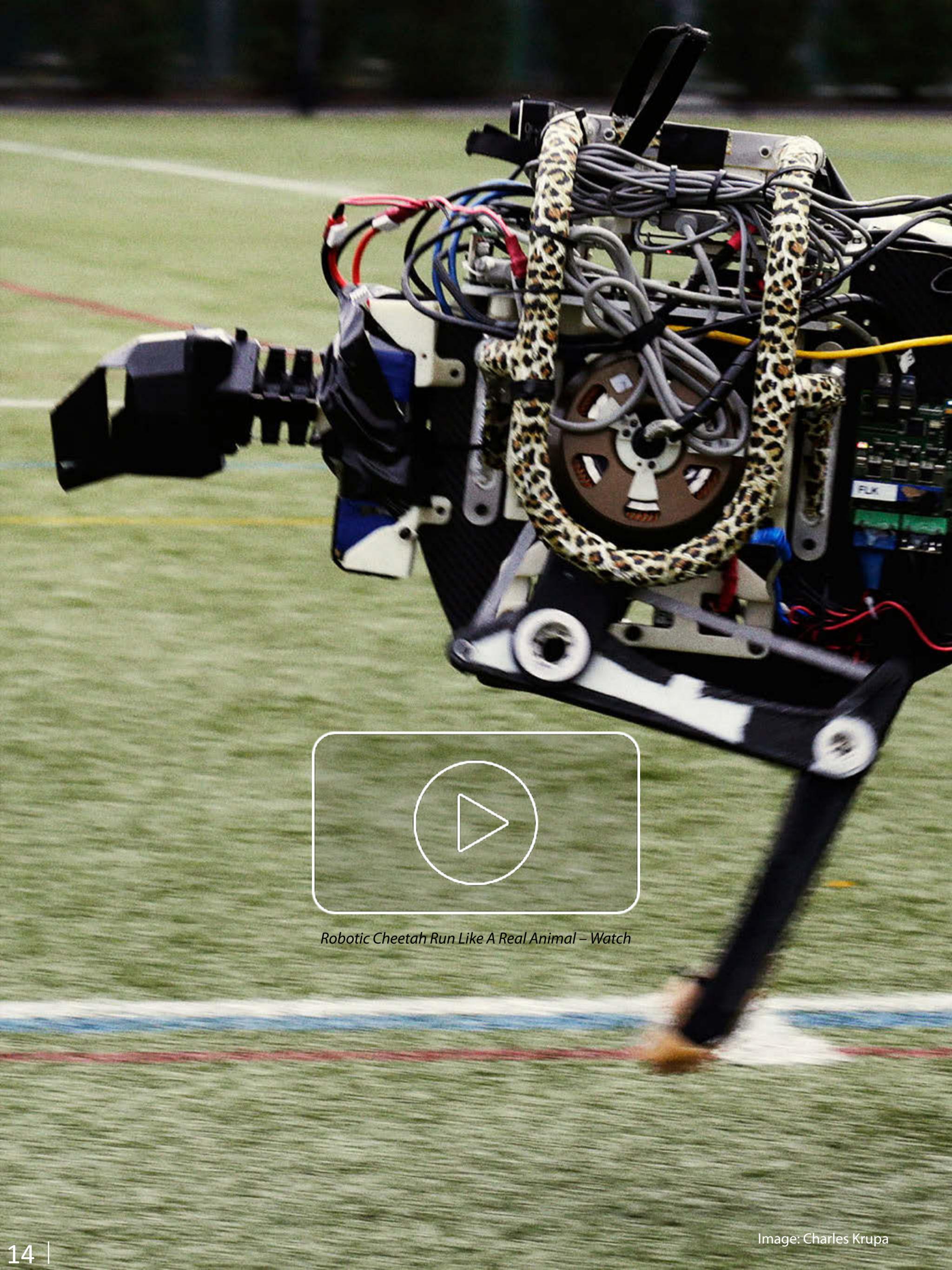
"This is kind of a Ferrari in the robotics world, like, we have to put all the expensive components and make it really that instinctive," said MIT professor Sangbae Kim, who leads the school's Biomimetic Robotics Lab that designed the robot. "That's the only way to get that speed."

Insight gleaned from the design of their prototype could have real-world applications, including the design of revolutionary prosthetics, wearable technologies, all-terrain wheelchairs and vehicles that can travel efficiently in rough terrain much like animals do, Kim said. There are hopes the robot will be able to be used in search and rescue operations in hazardous or hostile environments where it's too risky to send a human rescuer.

"When the robot is running, at every step, we calculate the appropriate amount of the force to the legs so that the robot can balance itself,"

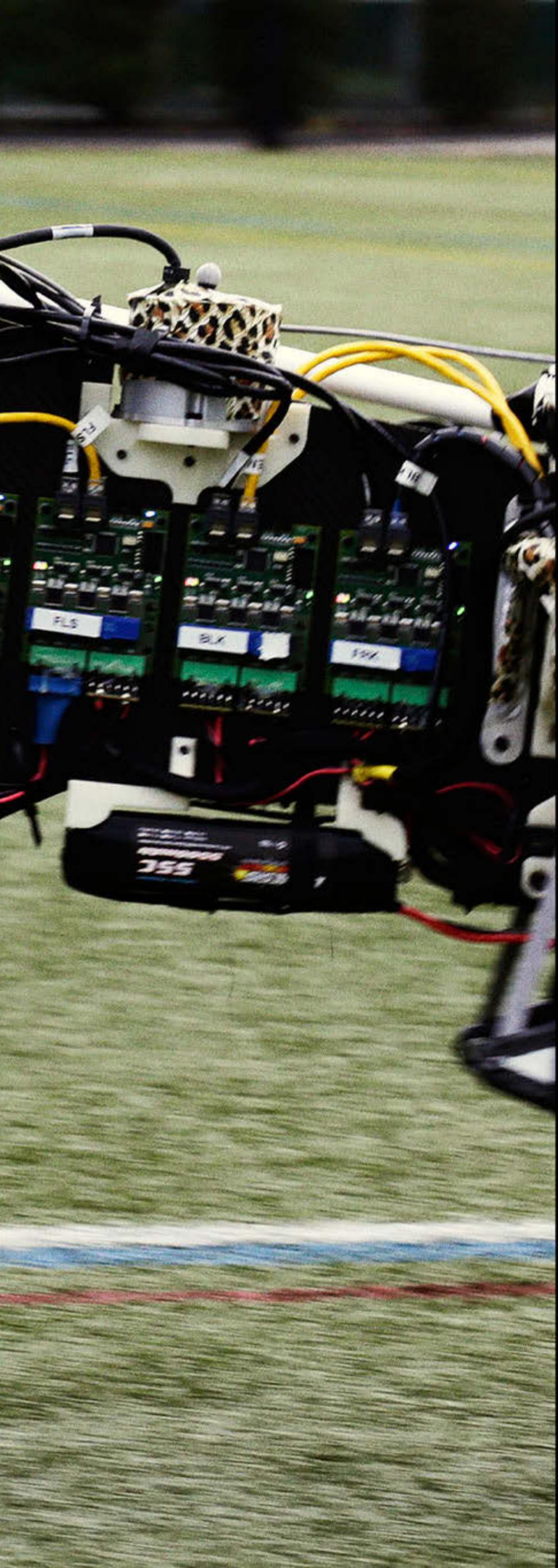






Robotic Cheetah Run Like A Real Animal – Watch

Image: Charles Krupa



said MIT research scientist Hae-Won Park, who wrote the complex algorithm used to control the cheetah, which weighs around 70 pounds - about the same as one of its female feline counterparts.

Sensors inside the robot measure the angle of the leg and that information is sent to an onboard computer that also organizes data from the Inertial Measurement Unit, or IMU, which is also used to maneuver drones and ballistic missiles, Park said.

The project is funded by the U.S. Department of Defense's Defense Advanced Research Projects Agency. The military research arm is also funding a similar robot being developed by Boston Dynamics. The company says its version is powered by an off-board hydraulic pump and uses a boom-like device to keep it running in the center of the treadmill.

Crafting the cheetah robot took five years of designing, testing, tweaking and plenty of confidence to ignore those who said electric motors aren't strong enough to propel a running mechanical cheetah powered by batteries.

Researchers had to exercise a lot of patience during test runs. The robot broke dozens of legs manufactured by 3-D printers and reinforced with Kevlar strips and carbon fiber.

THE RESULTS?

Strong, lightweight components that made untethered running possible, including a carbon fiber-and-foam sandwich frame that can absorb the forces generated by running and jumping.

Some off-the-shelf components, including an Xbox controller for maneuvering the robot and wireless Internet communications for sending commands to the mechanical cheetah, also came in handy.

Each leg is propelled by three motors that can generate powerful forces at slow speeds.

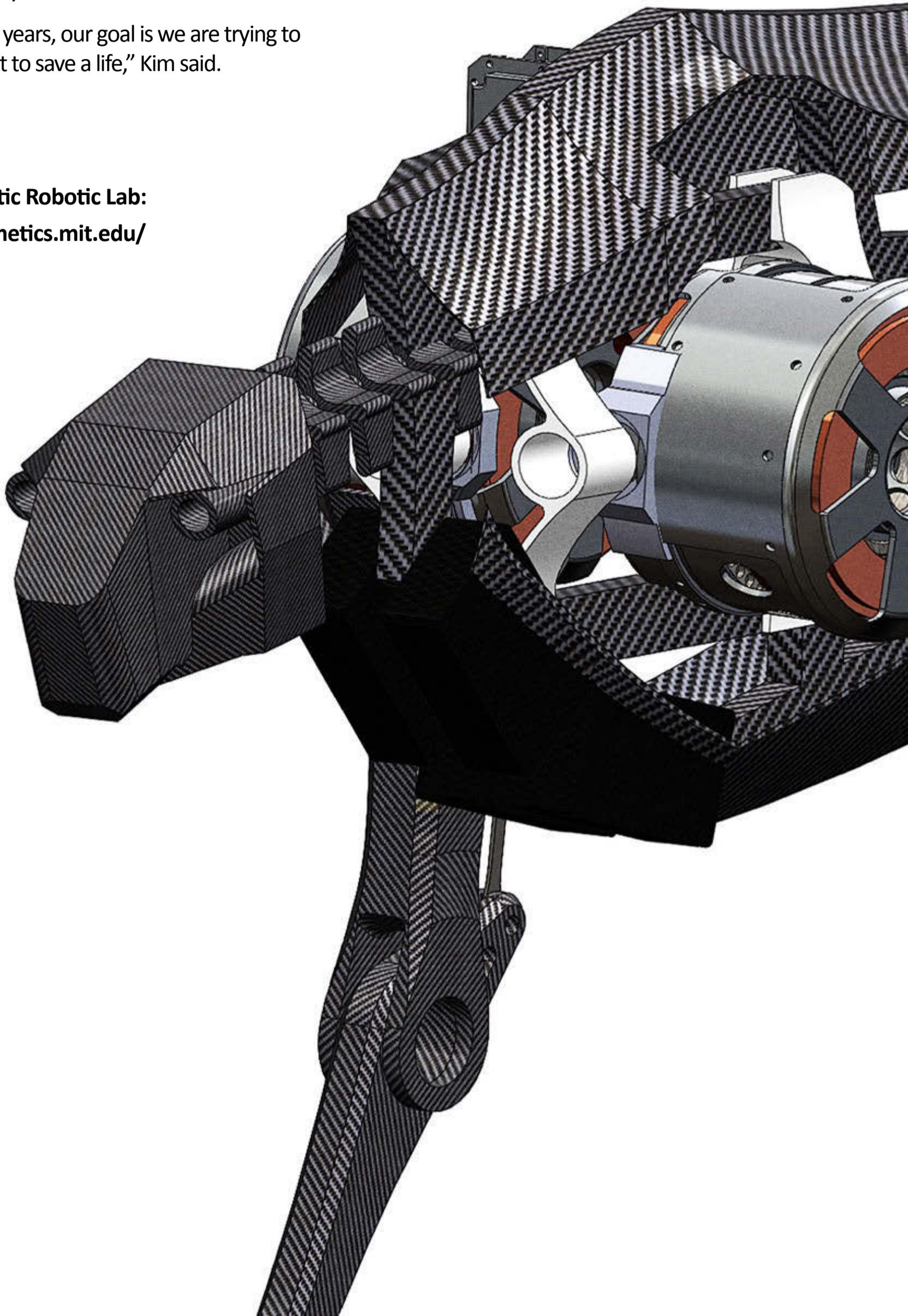
Still, researchers continue to tweak their prototype, looking to add additional sensors that would eventually make the robot autonomous.

"In the next 10 years, our goal is we are trying to make this robot to save a life," Kim said.

Online:

MIT Biomimetic Robotic Lab:

<http://biomimetics.mit.edu/>





Jennifer Aniston's

STAR TURN IN CAKE SPARKS OSCAR TALK







What's your image of Jennifer Aniston? We suspect that whatever appears in your head - whether you immediately picture her long-time role as Rachel Green in the venerable sitcom *Friends* or instead something from her multitude of movie roles - is all makeup and bubbly personality. You're less likely to imagine a careworn woman addicted to prescription painkillers - and yet, that role is precisely what has sparked talk of a first Oscar nomination.

We are, of course, referring to *Cake*, the drama that premiered in the Special Presentations section of this year's Toronto International Film Festival (TIFF), and in which she is joined by such talents as Adriana Barraza, Felicity Huffman, William H. Macy and Anna Kendrick, with Daniel Barnz on directorial duties.

It is a talented cast and crew for sure, but it's Aniston who has hogged the column inches for her unexpectedly raw and emotionally convincing turn as Claire Simmons, an acerbic woman and car crash survivor who becomes obsessed with the suicide of another member of her chronic pain support group (played by Kendrick). Learning more about the details of the suicide leaves her confronting her own personal tragedy.

ACADEMY AWARD CREDENTIALS STRENGTHENED

Aniston's showing in the film, bereft of makeup save for artificial scars, has won her more than mere raving on social media.





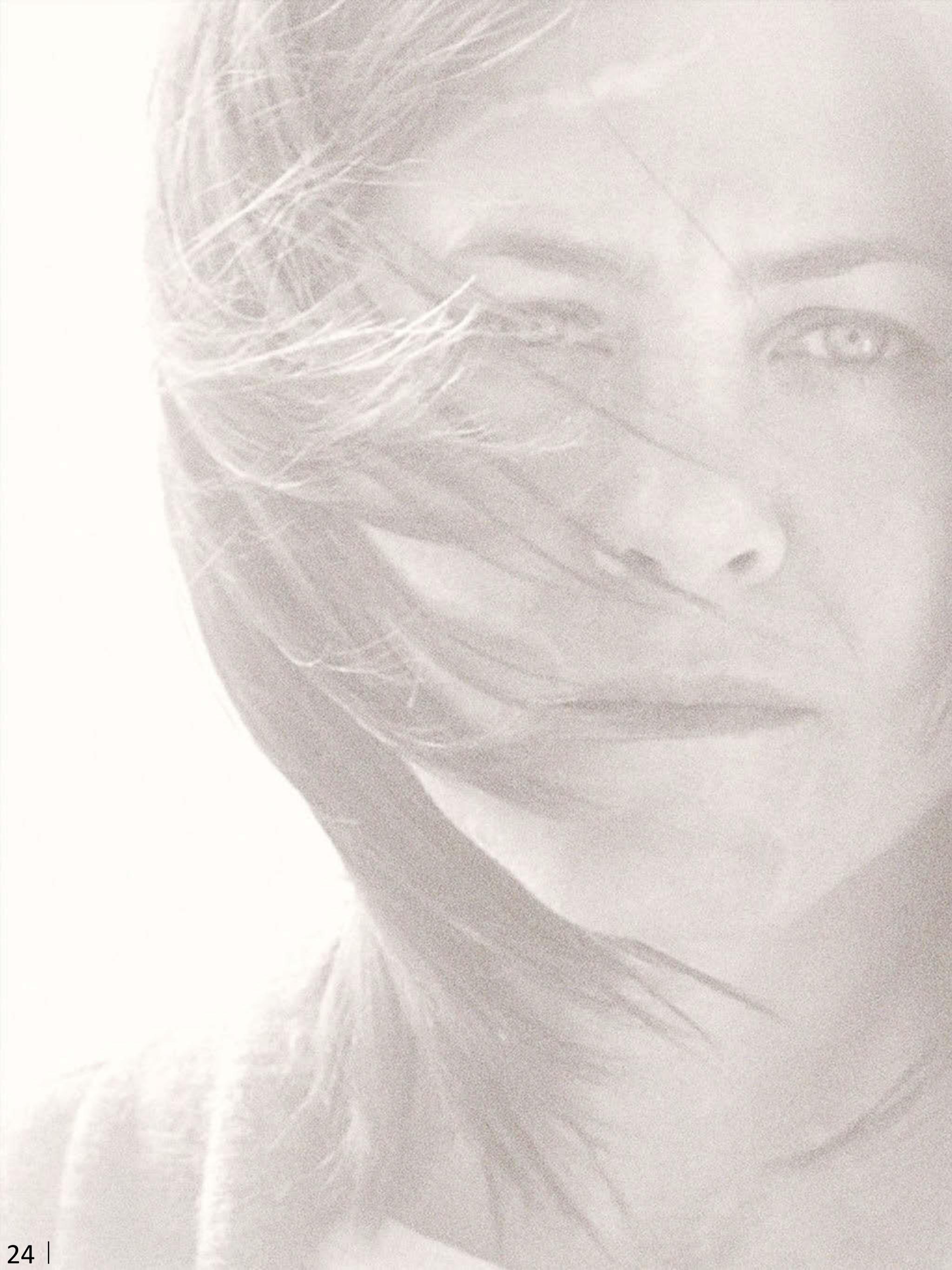
It's set up talk among some observers that **she could be in line for an Academy Award nomination at last**, to add to her existing Emmy and Golden Globe wins for *Friends*.

It's still being talked about as an outside shot by some, but a last-minute change to the film's release date suggests confidence on the part of producers that this is a flick with the potential to scoop accolades. The film received a standing ovation at TIFF and there has been no shortage of warm words from the critics. **The Hollywood Reporter** writer **Leslie Felperin** hailed Aniston's "honest, sturdy performance", while according to Betsy Sharkey of The Los Angeles Times, "it is a serious treat to see the actress test herself."

Aniston herself evidently relished a role marking such a dramatic departure from her lighter-hearted *Friends* persona, commenting at a Toronto press conference that she "loved every minute of it. It was extremely liberating to do that. I loved it, because as women, we do feel we have to live up to an expectation, whether on camera or just going to the market." The time she took in preparing for the role to speak to chronic pain experts and sufferers about their difficulties moving was an indication of her dedication to the project.

THE FRIENDS STAR'S PATH THROUGH HOLLYWOOD SO FAR

Aniston may have a long career in television to look back on, encompassing not only *Friends* but also such productions as *Molloy*, *Ferris Bueller* and *The Edge*, but **she's never**





taken on a role quite like Claire Simmons before, either in TV or her film career up to this point.

She made her first film appearance alongside Warwick Davis as a spoiled daughter in the 1993 horror comedy *Leprechaun*, and didn't resurface in the film world until her appearance in a pair of romantic comedies in 1996, *Dream for an Insomniac* and *She's the One*. Indeed, her Hollywood film career has very much centered around comedy since then, including her first box office hit - *Bruce Almighty* - in 2003, and *We're the Millers* in 2013.

She has enjoyed a successful film career for sure, with her most commercially successful flicks also including *Along Came Polly* (2004), *The Break-Up* (2006), *He's Just Not That Into You* (2009) and *The Bounty Hunter* (2009). However, there's been little to suggest that a performance of the gravity of *Cake* was in the offing.

AN "INCREDIBLE RANGE" AS AN ACTOR

To be fair to Aniston, she has not generally had the roles in which she could push herself beyond more straightforward comedy, with *The Hollywood Reporter*'s Kirk Honeycutt calling 2008's *Marley & Me*, for example, "a warm and fuzzy family movie, but you do wish that at least once someone would upstage the dog." One exception was *The Good Girl*, which earned her an Independent Spirit Award nomination - but that was way back in 2002.





As Stephanie Merry has pointed out for The Washington Post, that latter film is "the one critics and fans always bring up" - which isn't too surprising, given that it was one of her few movies where "the spotlight was squarely on her for a change. She wasn't one part of an ensemble, as on *Friends*, nor one half of a couple as she's been in every movie since."

Aniston's turn in that film, as a makeup counter worker who becomes romantically involved with a much younger colleague as an escape from her loveless marriage, was impressive. Merry has described it as "understated" and an indication of "what an incredible range she has in the right role", while also pointing out how ludicrous it is that "Aniston boosters are still crowing about *The Good Girl* 12 years later... **You don't hear them still proclaiming how amazing Meryl Streep was in *The Hours*.**"

CRITICS RAVE ABOUT CAKE SHOWING

As aforementioned, Aniston's return to a role somewhat akin to *The Good Girl* drew plenty of positive reviews - indeed, Merry observed that while *Cake* was "another downbeat movie", it also offered "a more incisive dose of sarcastic comedy" than the former film. Merry noted Aniston's very different appearance in this film, as a pain-stricken woman who "wears oversized sweaters, never styling her greasy brown hair. She looks entirely unremarkable except for some facial scars that hint at how she ended up in such physical agony."

Meanwhile, Tyler McCarthy, writing for International Business Times, beseeched his readers to "prepare to see Jennifer Aniston like you've never seen her before", commenting of the trailer that "gone is the fun aunt persona fans have come to expect... **instead, this is a powerful, dramatic performance that shows struggle with weighty matters of death, suicide and recovery.**"

Another to express amazement at Aniston's take on a heavier role was the Awards Editor and Columnist at Deadline, Pete Hammond. Describing the film as "potentially career-changing" for Aniston, he added that the actor had "proved beyond cosmetic changes that she is the real thing. She's heartbreakingly good, alternately bitingly dramatic and funny in this story of a woman suffering with chronic pain."

ANISTON LOOKING LIKE AN AWARD WINNER...

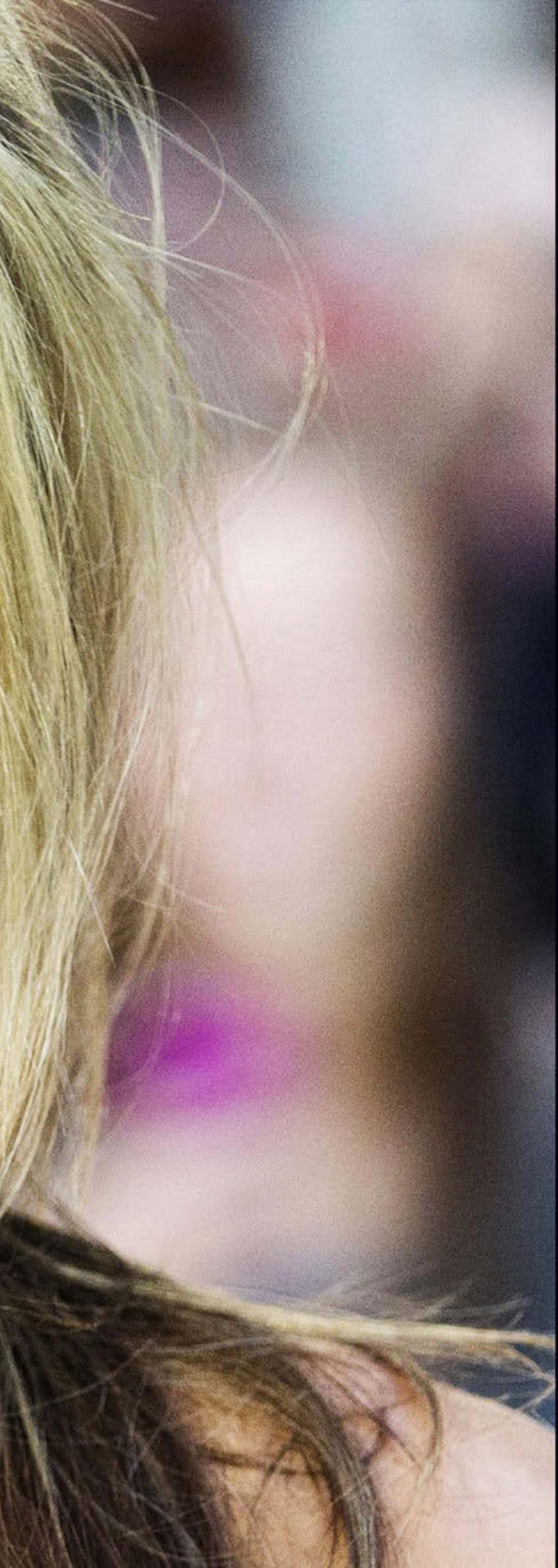
Not all of the critics are necessarily anticipating an Aniston Oscar nod for *Cake* - Merry said that "might be a long shot" - but it could still mean big things for her career. Hammond said that he could imagine it being "Aniston's Monster or Monster's Ball - or even *Dallas Buyers Club*, which transformed Matthew McConaughey's career last year and brought him the Best Actor Oscar."

While Merry didn't go that far, she did say that Aniston taking on a film role minus "the crutch of an ensemble or significant other is, in itself, a win."









Nonetheless, the distributor Cinelou's decision to switch the release date to qualify it for the Oscars does at least put Aniston in the awards season conversation. Hollywood Life writer Shira Benozilio **said that the tweaked date had "prompted Oscar rumors to start buzzing like crazy"**, amid suggestions that she could yet be nominated for Best Actress.

... BUT OSCAR TALK MAY BE A LITTLE PREMATURE

The lack of strong female roles in Hollywood right now would seem to give Aniston a chance, but she still has some formidable competition this year, including from Oscar winner Reese Witherspoon for *Wild*, as well as past nominees Amy Adams (*Big Eyes*), Jessica Chastain (*A Most Violent Year*) and Julianne Moore (*Still Alice*). This is to say nothing of such heavily talked-about up-and-comers as Rosamund Pike (*Gone Girl*) and Felicity Jones (*The Theory of Everything*).

So, right now, we'd be inclined to agree with Merry. An Oscar nomination or even outright win may still be just beyond Aniston right now, but that she has even been spoken of in such illustrious company is a fine achievement in itself, and quite a milestone for the one-time Rachel Green. ■

by Benjamin Kerry & Gavin Lenaghan

AMAZON'S NEW ROBOT ARMY IS READY TO SHIP



Image: Brent Humphreys/Redux



A year ago, Amazon.com workers like 34-year-old Rejinaldo Rosales hiked miles of aisles each shift to “pick” each item a customer ordered and prepare it for shipping.

Now the e-commerce giant boasts that it has boosted efficiency - and given workers’ legs a break - by deploying more than 15,000 wheeled robots to crisscross the floors of its biggest warehouses and deliver stacks of toys, books and other products to employees.





"We pick two to three times faster than we used to," Rosales said during a short break from sorting merchandise into bins at Amazon's massive distribution center in Tracy, California, about 60 miles east of San Francisco. "It's made the job a lot easier."

Amazon.com Inc., which faces its single biggest day of online shopping on Monday, has invested heavily this year in upgrading and expanding its distribution network, adding new technology, opening more shipping centers and hiring 80,000 seasonal workers to meet the coming onslaught of holiday orders. Amazon says it processed orders for 36.8 million items on the Monday after Thanksgiving last year, and it's expecting "Cyber Monday" to be even busier this year.

CEO Jeff Bezos vows to one day deliver packages by drone, but that technology isn't ready yet. Even so, Amazon doesn't want a repeat of last year, when some customers were disappointed by late deliveries attributed to Midwestern ice storms and last-minute shipping snarls at both UPS and FedEx. Meanwhile, the company is facing tough competition from rivals like Google and eBay, and traditional retailers are offering more online services.

Amazon has forecast revenue of \$27.3 billion to \$30.3 billion for the holiday quarter, up 18 percent from last year but less than Wall Street had expected. However, Amazon has invested billions of dollars in its shipping network and its reliability is a big selling point to customers, Piper Jaffray investment analyst Gene Munster wrote in a note to clients Friday. He thinks Amazon's forecast is conservative.

The Seattle-based company now has 109 shipping centers around the globe. The Tracy facility is one of 10 in which Amazon has deployed the robots, using technology acquired when the company bought robot-maker Kiva Systems Inc. in 2012, said Dave Clark, Amazon's senior vice

president for operations, who gave reporters a tour on Sunday.

More than 1,500 full-time employees work at the Tracy center, which has 1.2 million square feet of space - the equivalent of 28 football fields. They are joined by about 3,000 robots, gliding swiftly and quietly around the warehouse. The robots navigate by scanning coded stickers on the floor, following digital commands that are beamed wirelessly from a central computer.

Each of the squat orange machines can slide under and then lift a stack of shelves that's four feet wide and holds up to 750 pounds of merchandise. The system uses bar codes to track which items are on each shelf, so a robot can fetch the right shelves for each worker as orders come in.

Because the robots travel underneath, the shelves can be stacked closely together, which means the warehouse can hold more goods, Clark said. The Tracy center now holds about 20 million items, representing 3.5 million different products, from bottles of gourmet steak sauce to high-end audio headsets, books and video games. Clark said it can ship 700,000 items in a day, but will hold more and ship more by next year.

The robots will cut the Tracy center's operating costs by 20 percent, Clark said. But he was quick to assert they won't eliminate jobs.

"Our focus is all about building automation that helps people do their jobs better," he said, adding that workers are needed for more complex tasks such as shelving, packing and checking for damaged items. The system takes the complexity of different tasks into account, rather than forcing employees to work at an inhuman pace, Clark added.

Rosales agrees. Though he works rapidly, he said the robots "actually adjust to your speed. If you're picking slower, they slow down."

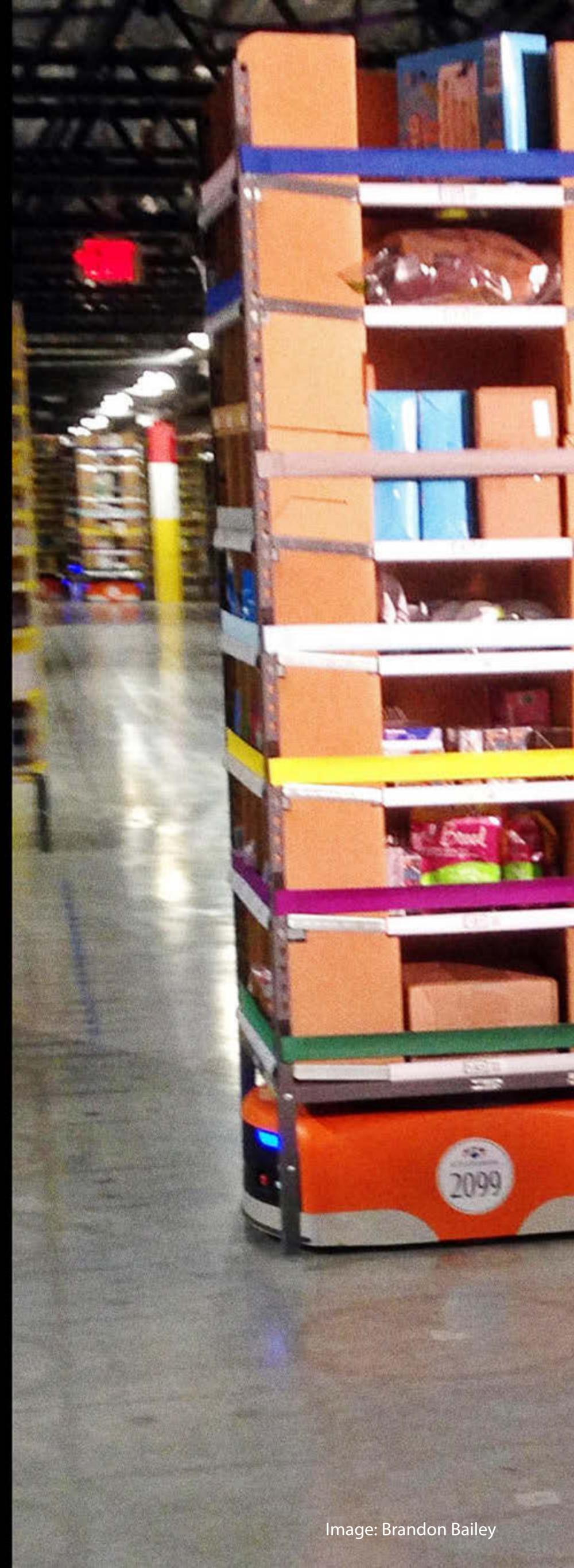


Image: Brandon Bailey



JURORS TO HEAR STEVE JOBS TESTIMONY AT APPLE TRIAL

After nearly a decade in legal wrangling, a billion-dollar class-action lawsuit over Apple's iPod music players heads to trial on Tuesday in a California federal court. A key witness will be none other than the company's legendary late founder Steve Jobs, who will be heard in a videotaped deposition.

Attorneys for consumers and electronics retailers claim Apple Inc. used software in its iTunes store that forced would-be song buyers to use iPods instead of cheaper music players made by rivals. The software is no longer used, but the plaintiffs argue that it inflated the prices of millions of iPods sold between 2006 and 2009 - to the tune of \$350 million. Under federal antitrust law, the tech giant could be ordered to pay three times that amount if the jury agrees with the estimate and finds the damages resulted from anti-competitive behavior.

"The fact that this case is still going 10 years later is a sign that technology often outpaces law," said Mark Lemley, a Stanford law professor.

Attorneys are set to make opening statements Tuesday morning in the Oakland, California courtroom of U.S. District Judge Yvonne Gonzalez Rogers.

The case harkens back to the early days of digital music and portable devices, when Apple quickly became the world's biggest legal seller of downloaded songs after launching its iTunes

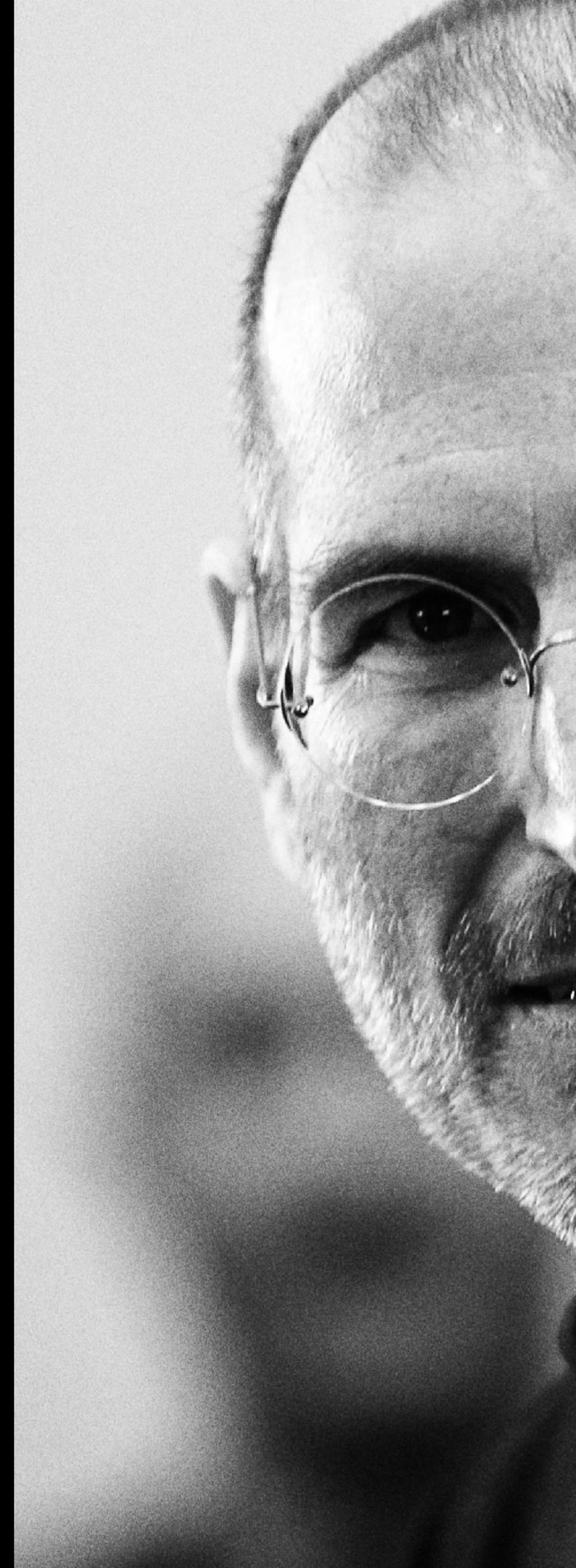






Image: Paul Sakuma



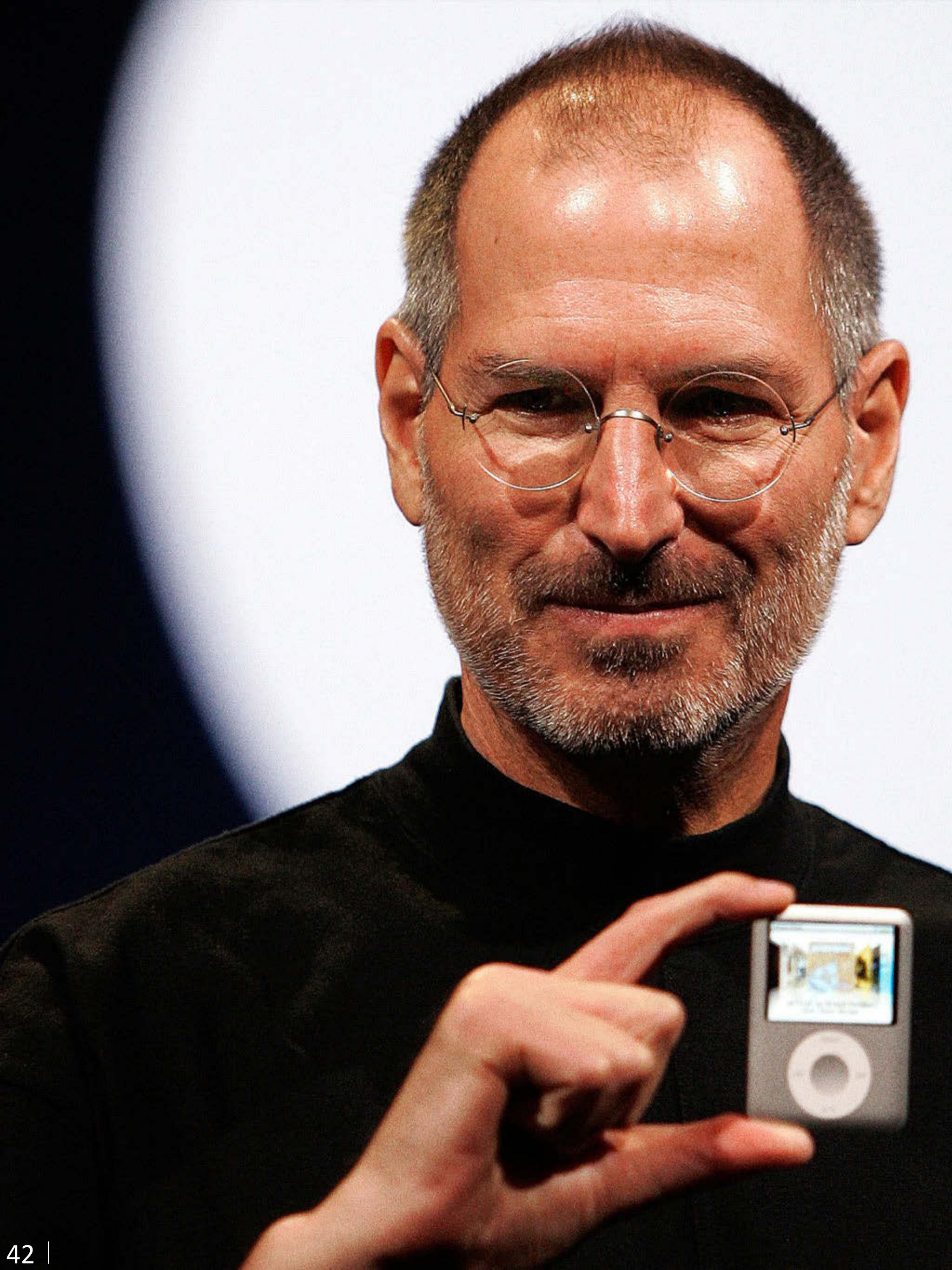
store in 2003. By agreement with major record companies, which were wary of unauthorized copying and file-sharing services like Napster and Kazaa, Apple encoded the songs sold through iTunes with “digital rights management” software that prevented unauthorized copying. The same software, known as FairPlay, was also built into iPods.

But Apple’s FairPlay was incompatible with anti-copying code used by other online music sellers, such as the RealPlayer Music Store operated by RealNetworks, an Internet streaming company based in Seattle. As a result, songs from rival online stores could not be played on iPods, and songs purchased on iTunes could not be played on competing portable devices, including Microsoft’s Zune and Diamond Multimedia’s Rio music player.

Music fans chafed at the restrictions. RealNetworks soon introduced coding that allowed songs purchased from its store to be played on iPods and other devices. But Apple blocked the RealNetworks code, known as Harmony, when it released an update to the iTunes program in 2004. Real tried again with a new version of Harmony, but it was blocked by another iTunes update in September 2006.

The plaintiffs contend that music lovers were effectively locked into using iPod players, because they could not easily switch their music collections to other portable devices. This prevented competition that would have driven down iPod prices, plaintiffs say. Apple sold iPods at prices ranging from \$79 to \$349 in the fall of 2006. It would sell nearly 150 million of the devices over the next two and a half years, during the period covered by the lawsuit.

Apple stopped using the restrictive FairPlay code in early 2009, after record companies shifted strategy to embrace the growing popularity of digital music. More recently, the music industry





has moved toward a streaming-focused business model rather than selling copies of songs for individual download.

But attorneys for the plaintiffs maintain that iPod buyers are still entitled to compensation for past harm. Although iPod prices have fallen - models that come with more memory now retail for \$49 to \$299 - plaintiffs' attorney Bonny Sweeney said in an interview: "Prices always go down in the tech market. But the prices were still higher than they should have been."

If their attorneys prevail, the class of plaintiffs who would be eligible for damages include consumers and some retailers who bought iPods between Sept. 12, 2006 and March 31, 2009.

Apple declined comment outside court, but its attorneys have argued that Apple competed fairly by designing its iTunes updates to provide legitimate security protection and a host of other features desired by consumers. Apple lawyers William Isaacson and Karen Dunn also contend in court papers that the plaintiffs' economic expert used flawed assumptions to conclude that the software inflated iPod prices.

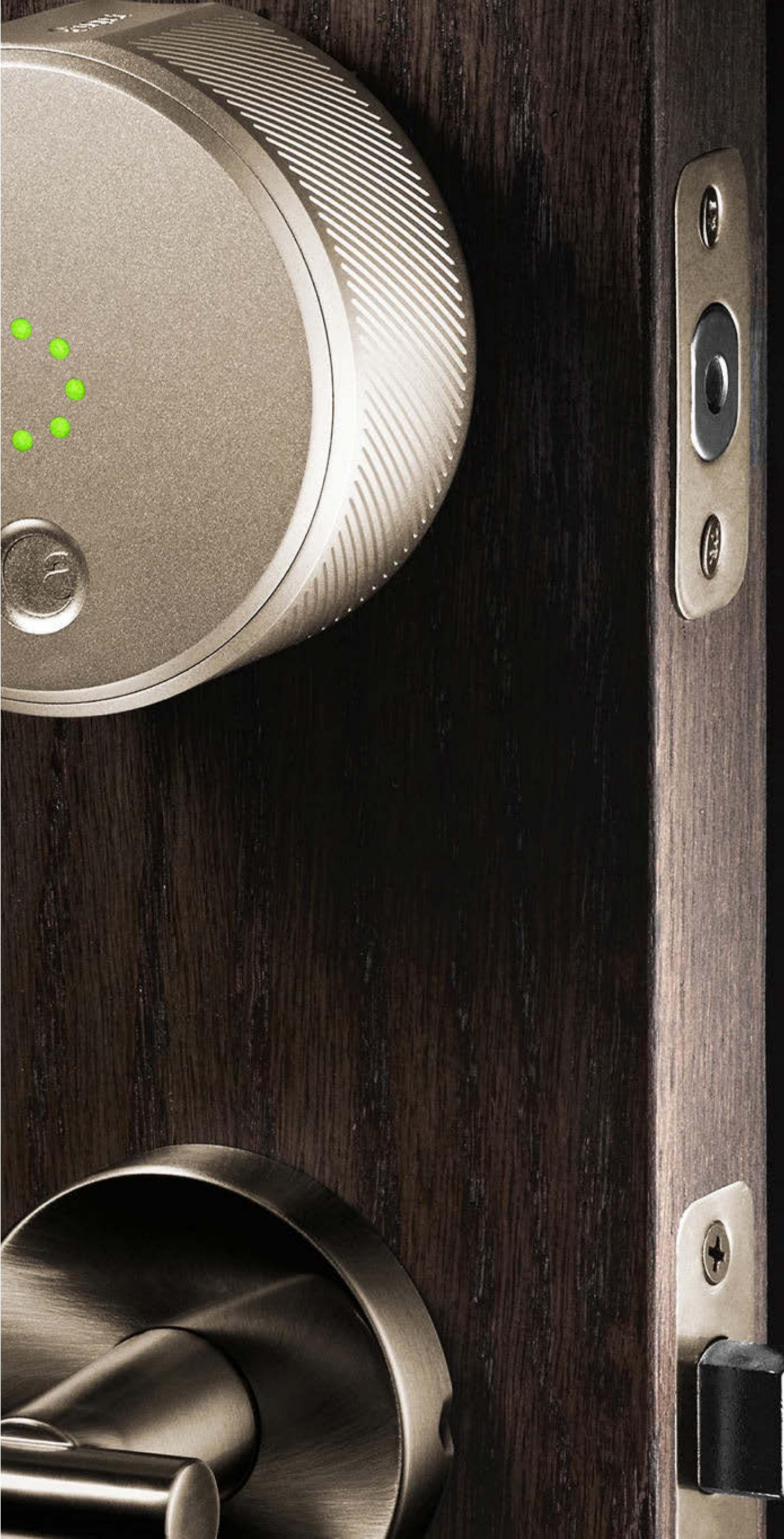
The Cupertino, California company has said it paid no attention to online rivals when it set the price of iPods. Sweeney, however, said Apple was "furious" with RealNetworks when it released the Harmony software. She said Jobs' testimony will show Apple's reaction.

Aside from its focus on technology no longer in use, legal experts say the case is noteworthy because most antitrust claims get tossed by a judge or settled out of court.

"Only a very small handful of antitrust cases go to trial," said University of Iowa law professor Herbert Hovenkamp. It's difficult to prove consumers were harmed in such cases and the outcome often comes down to a duel between economic experts, he said.

How
Apple
could
soon
integrate
your
entire
home
lifestyle

HOMEKIT DEVICE LAUNCHES
PRIMED FOR NEXT YEAR



IT'S ALL ABOUT HOMEKIT

It's been a busy year for fans of all things Apple - that's for sure. We've had the iPhone 6, iPhone 6 Plus, iOS 8, OS X Yosemite, new iPads, iMacs and even the long-rumored Watch - or its unveiling, anyway. But do you know what else broke cover from the Cupertino stable this year? That's right: HomeKit.

What's HomeKit, we hear you say? For those who managed to lose sight of it amid the excitement of the other hardware and software announcements that have besieged us this year, HomeKit is a set of tools that will enable the creation of sophisticated iOS apps capable of integrating with and controlling various leading connected home devices.

What it isn't - contrary to earlier reports - is a means of powering such connected devices. As an average home user, you'll therefore be using HomeKit with various existing devices from well-known manufacturers, **controlling such things as thermostats, lights, cameras, garage doors and other appliances via your humble iOS device.**

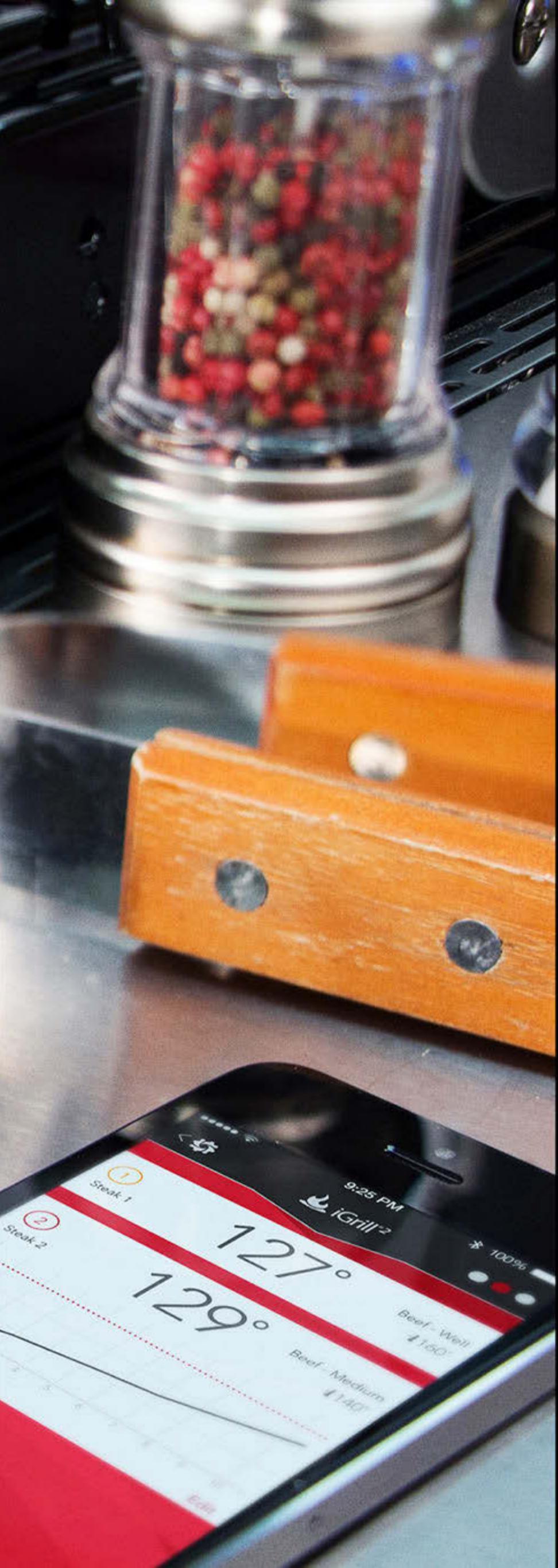
HOMEKIT DEVICES ARE STILL ON THE WAY

The word back in June was that HomeKit would be unleashed later this year as part of iOS 8... but the launch of the latest iteration of Apple's evergreen mobile operating system came and went without so much as another murmur about HomeKit from Tim Cook and co.









Indeed, at the last round of big product announcements in October, Cook **made it pretty clear that there would be no further big news forthcoming for the rest of 2014**, with Mashable describing "industry insiders" as saying the same thing. It had been rumored that a software update for Apple TV would be announced, complete with HomeKit compatibility making it the hub of the smart home platform.

Does all of this indicate that HomeKit has been forgotten about or even abandoned? The short answer is: definitely not. What we're hearing is that HomeKit is still being prepared, with device manufacturers now going through the HomeKit certification process, meaning that it'll probably be next year by the time a decent range of actual devices compatible with Apple's new home automation platform hits the shelves.

THE SIGNIFICANCE OF HOMEKIT

Before we go any further, however, let's consider why HomeKit is so important - for Apple, the average home user and the fledgling 'smart home' industry as a whole.

There's no question of just how drastically a complete suite of HomeKit-compatible devices could alter the way we live our lives. Just imagine being able to control furnaces, air conditioners, garage doors and security systems in your home, with the mere iPhone or iPad in your pocket. It could certainly make your life so much more convenient.





By 'convenient', we don't just mean being able to approach in your car and watch your garage door automatically swing open as your back door unlocks. We aren't even talking about that immensely satisfying experience of walking up to the house with a hot date as your fireplace is activated and emits its warm glow, as the lights dim romantically.

THE POTENTIAL COMPLICATIONS BROUGHT BY THE 'SMART HOME'

Yes, that's because we're also talking about being able to turn up the air conditioning in your home as a heatwave strikes, or switch on the lights downstairs for your child who is scared of the dark... while you're on a business trip on the other side of the country. Well, that's what we can imagine HomeKit amounting to, anyway.

After all, there are already solutions on the market pointing towards this kind of future. You may already have a Nest Learning Thermostat in your home, for example, and therefore use the associated app to connect with and control it. However, you can probably already imagine how this kind of home automation could get complicated. What if you have another such device with a completely different manufacturer, and then another with another manufacturer, and so on?



35%

72

until 9:00pm



72

Wed Oct 15

72°

Indoor Temp

Humidity: 51%

It's already easy to imagine a nightmare scenario of a dozen or so apps for a dozen or so devices, which you have to rush between in order to control your home's devices with any degree of efficiency. Plus, you'd be effectively entrusting control of your home network to a vast range of companies, **which may not help you sleep at night in today's privacy-paranoid age.**



WHERE THE APPLE TV COULD COME IN

There's another obvious problem. How would remote control of your home work via your iOS device if you aren't within range of a Wi-Fi network or iBeacon signal? That creates the need for something that interfaces between you, your remote location and your home's appliances. Sure, you might think that your Mac could do the job, but not everyone owns a Mac, and even if you do, the costs of keeping it running constantly so that it can be accessed remotely whenever you wish to are, frankly, eye-watering.

This creates a clear need for some other device that is modest in size, power-efficient and continually on. It would be able to work with all manner of other home devices from competing manufacturers and would be Wi-Fi enabled, able to communicate with those devices over a local network as well as remotely.

For many observers, it's an updated version of the Apple TV that would seem to hold the most potential for such a purpose, thanks in part to its existing iOS software under the bonnet. It doesn't take too great a leap of imagination to picture a future Apple TV with a beefier A7 processor and greater amount of Flash storage, as would both be necessary for it to control your home's devices.

As well as making home automation so much more convenient and less confusing, such a device could add a valuable extra layer of security, with intimate information about





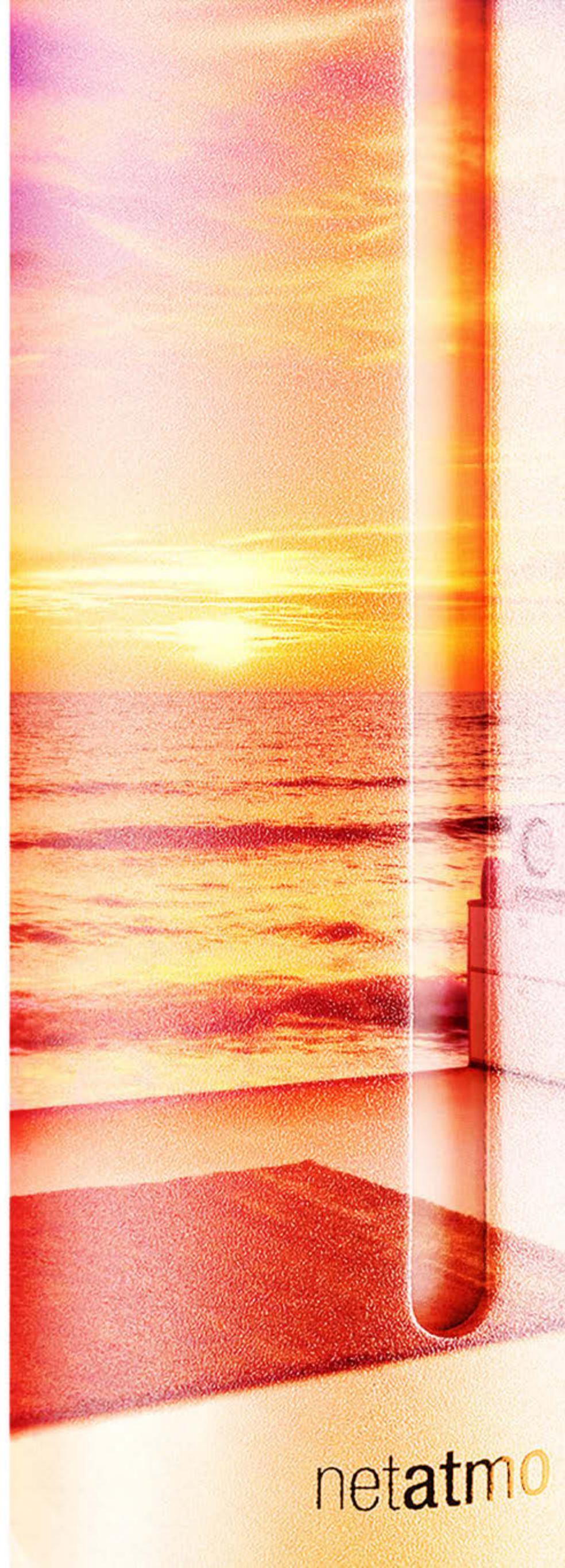
your home being stored on the Apple TV and hashed, instead of being handed directly to the likes of Honeywell, GE, Nest, Facebook and Google.

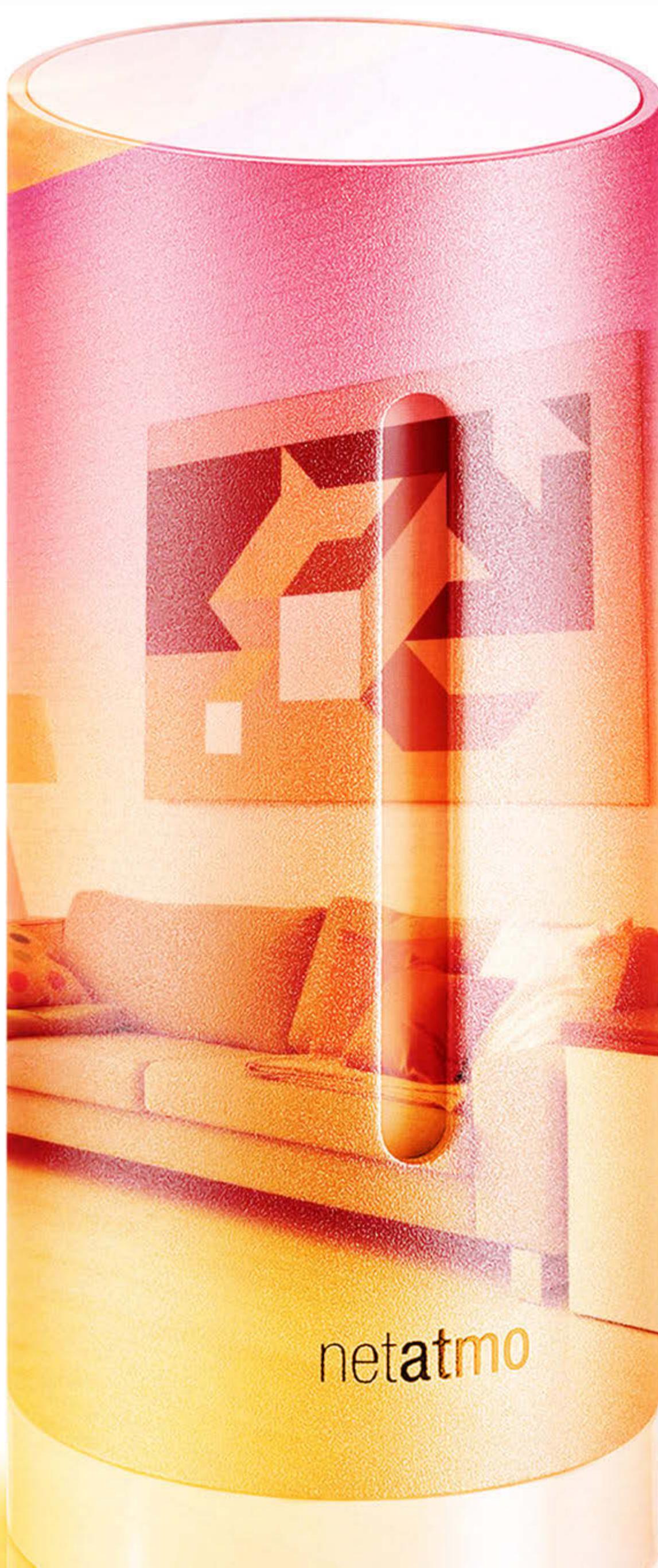
PROGRESS IS CONTINUING APACE

In October, the launch of a complete range of HomeKit-compatible devices came yet closer to reality with Apple's publication of the final Made for iPhone (MFi) specifications, as hardware developers and manufacturers require in order to make such products. Indeed, by then, several such devices had already been unveiled, **ranging from a smart USB charger to a range of connected home sensors.**

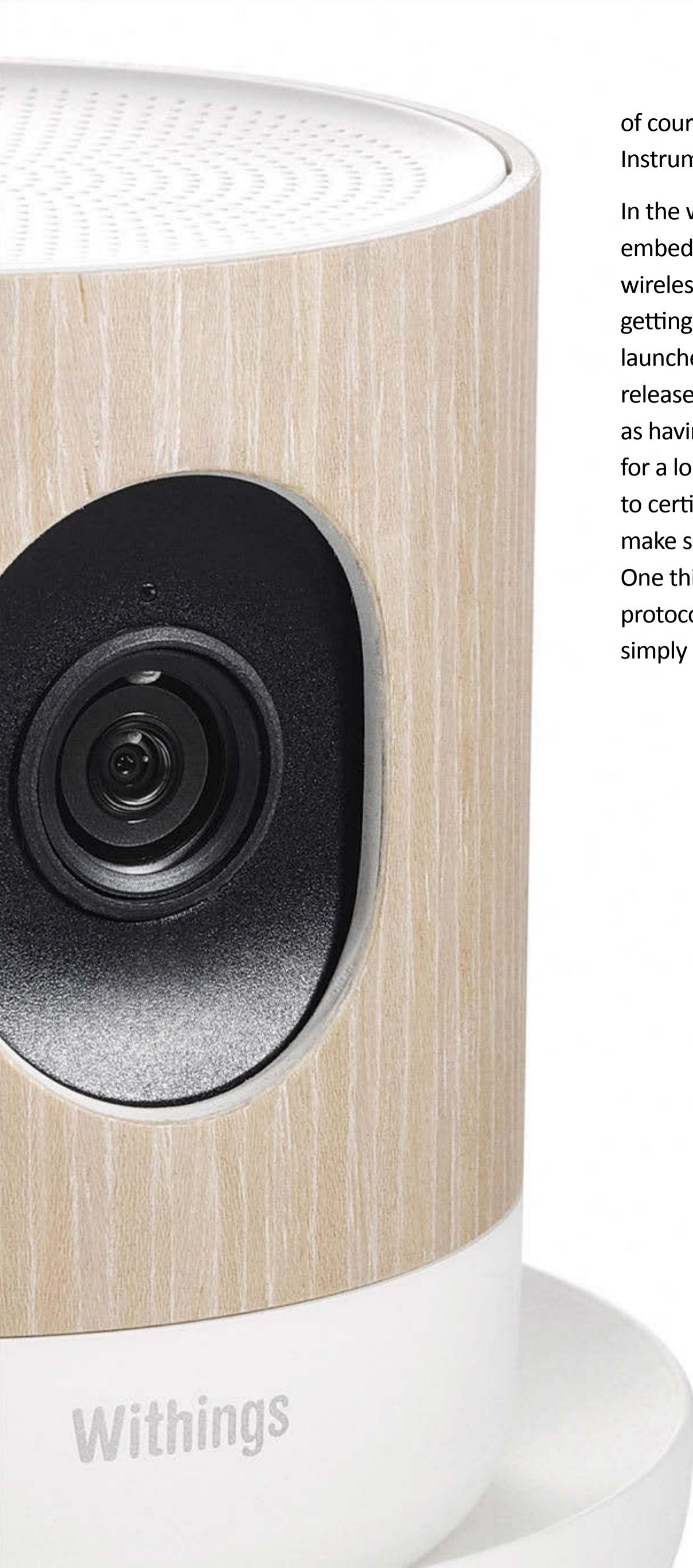
A series of partners - including Honeywell and Philips - have now been announced by Apple, but once hardware developers truly get to work, you can expect everything from locks, fans and thermostats to garage doors, light bulbs and power outlets to be able to integrate with HomeKit. What's more, beta software is said to have been released for the Apple TV that explicitly supports HomeKit.

It has been suggested that we could see the launch of more HomeKit gadgets at the 2015 International CES in Las Vegas in January. According to an early November report by Forbes, Apple HomeKit-enabled Bluetooth and Wi-Fi chips - **as are required by smart home device makers wishing to get on board with Apple's home automation platform** - had finally started shipping to hardware developers. The chipmakers are,









of course, Apple-approved and include Texas Instruments, Marvell and Broadcom.

In the words of the senior director of embedded wireless in Broadcom's mobile and wireless group, Brian Bedrosian, "Everyone's getting ready - expect to see new product launches in the next cycle of product releases." Describing the smart home industry as having "been a real fragmented market for a long time", he added that "It's critical to certify the interoperability of devices and make sure everything can join to a network. One thing HomeKit provides is the bridging protocols for various devices to connect simply by Wi-Fi to the cloud."

70



72



Honeywell

PLENTY OF REASON FOR EXCITEMENT



All of the above suggests that we only have a few months longer to wait for a more comprehensive complement of HomeKit-integrated devices to hit the market - **Apple Stores around the world already sell Yves Behar's August Smart Lock, for example.**

That leaves the question of when the big public launch of HomeKit will take place. It's been suggested that such a launch could coincide with the official debut of the Apple Watch, but of course, we don't know exactly when that will happen either, except that it will be sometime in 2015. We don't even know whether it'll be a small or large-scale event.

As ever with so many new and exciting developments in the world of Apple, we'll just have to wait and see. ■

by Benjamin Kerry & Gavin Lenaghan

GIFT GUIDE: GET BETTER AT SPORTS WITH SMART GEAR

Advances in technology present sports enthusiasts with plenty of options to train better and smarter.

High-level gear and biometric-analysis software are no longer limited to elite professional athletes. The weekender can now use some tech-savvy approaches to get better, perhaps, at a multitude of sports. Practice makes perfect, but technology can make practice better:



OPEN UP
OUR GAME.



FIFTY
A SENSOR BASKETBALL
INDOOR/OUTDOOR

SPALDING
SPALDING.COM

Bluetooth®

“GAIETY”
DEVELOPED
TECHNOLOGY
FOR YOUR
RECORDS

OPEN UP YOUR GAME.





HEXOSKIN SHIRT (\$400):

I felt like Batman in his form-fitting bat suit. It's a snug, black sleeveless shirt with a brain. Two bandage-width strips containing sewn-in sensors run across the chest and abdomen areas. They were held tight against my body by adjustable straps. A rechargeable pack about the size of a mint tin fits nicely near my waist. Once I started working out, the weirdness subsided and the hard work and perspiration took over.

The shirt communicated wirelessly with a phone app to give me real-time feedback about my breathing, heart rate, running cadence and calories burned.

What did I learn? Well, I need to run more to get in better shape, lower my heart rate and smooth out my breathing. All of these things are connected in exercise. Hexoskin did an excellent job illustrating that with smart on-screen graphics. Once I remembered to record my sessions, it stored all that data so I could measure improvements.

BABOLAT PLAY PURE DRIVE TENNIS RACKET (\$400):

This tennis racket logged every shot I hit, in or out, over multiple practice and competitive sessions. Sensors are integrated into the frame.

Through a companion phone app, the racket told me a lot, including things I'll need to build on if I hope to get better. After nearly a half-hour against a ball machine, I hit 191 shots: 106 backhands, 67 forehands, 15 serves and three overheads that were probably out of bounds. But those numbers mean nothing without the underlying metrics the racket also measured.

Hitting a tennis ball with topspin allows you to swing harder, but keep the ball in the court. Even though I thought I hit nearly everything with a fair amount of topspin, the racket stats told me otherwise. Of those 106 backhands, only 18 registered as being hit with topspin. Thirty weighed in as slice backhands, and 58 were flat strikes.

The on-screen statistics were primarily displayed with numbers and percentages, though the "impact locator" gave a graphical representation of a racket and showed the location of my off-center hits. This was helpful and gave me valuable information for future hitting sessions.

The data from the Babolat Play Pure Drive could be useful for mid-level to advanced players. The best part is that Babolat put the smarts into one of the best-selling rackets available, and not some odd outlier model that nobody uses.





94FIFTY BASKETBALL (\$250):

This smart basketball is primarily designed to help you develop better mechanics and fundamental hoops skills. It won't tell you, though, whether you made the shot. Arc and rotation are the primary metrics the ball calculates.

After stretching and dribbling around, I began a pretty lengthy shoot-around session at a local court. When I launched the companion app, I took the option of setting my desired shooting range at 15 feet. That's how far away the free-throw line is, and anything beyond that was going to nibble away at my confidence and cause me to miss more.

During one session, I took 26 shots from that range. The ball and app told me that the arc was too low on 14 of those shots and too high on another four. I made a few adjustments to my style and got more shots in during the next session later that day.

But it's hard to tell whether the advice from the app helped me make more shots or whether I was just getting warmed up.

Still, the technological heft of the ball is for real, and it can measure dribble power, the number of consecutive dribbles and the amount of backspin on my shots.





TOP Free Apps

iOS



#01 – Candy Crush Soda Saga

By King.com Limited

Category: Games

Requires iOS 5.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#02 – Facebook Messenger

By Facebook, Inc.

Category: Social Networking

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#03 – 2 Cars

By Ketchapp

Category: Games

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#04 – Heads Up!

By Warner Bros.

Category: Games

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#05 – iTunes U

By Apple

Category: Education

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#06 – Trivia Crack

By Etermax

Category: Games

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#07 – Facebook

By Facebook, Inc.

Category: Social Networking

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#08 – Instagram

By Instagram, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#09 – Dumb Ways to Die 2: The Games

By Metro Trains Melbourne Pty Ltd

Category: Games

Requires iOS 6.1 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#10 – YouTube

By Google, Inc.

Category: Photo & Video

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.

TOP Free Apps



#01 – OS X Yosemite

By Apple
Category: Utilities
Compatibility: OS X 10.6.8 or later



#02 – Kindle

By AMZN Mobile LLC
Category: Reference
Compatibility: OS X 10.6 or later



#03 – Todoist: To Do List | Task List

By Doist
Category: Productivity
Compatibility: OS X 10.8 or later, 64-bit processor



#04 – Memory Clean

By FIPLAB Ltd
Category: Utilities
Compatibility: OS X 10.7.4 or later, 64-bit processor



#05 – Evernote

By Evernote
Category: Productivity
Compatibility: OS X 10.6.6 or later



#06 – Xcode

By Apple
Category: Developer Tools
Compatibility: OS X 10.8.4 or later



#07 – Microsoft Remote Desktop

By Microsoft Corporation
Category: Business
Compatibility: OS X 10.7 or later, 64-bit processor



#08 – The Unarchiver

By Dag Agren
Category: Utilities
Compatibility: OS X 10.6.0 or later



#09 – Microsoft OneNote

By Microsoft Corporation
Category: Productivity
Compatibility: OS X 10.9 or later



#10 – Extreme Landings

By RORTOS SRL
Category: Games
Compatibility: OS X 10.6.6 or later

Mac OS X

TOP Paid Apps

iOS



#01 – Five Nights at Freddy's 2

By Scott Cawthon

Category: Games / Price: \$2.99

Requires iOS 5.1 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#02 – MEGA MAN X

By CAPCOM

Category: Games / Price: \$4.99

Requires iOS 4.3 or later. Compatible with iPhone, iPad, and iPod touch.



#03 – Five Nights at Freddy's

By Scott Cawthon

Category: Games / Price: \$2.99

Requires iOS 5.1 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#04 – Minecraft – Pocket Edition

By Mojang

Category: Games / Price: \$6.99

Requires iOS 5.1.1 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#05 – Monument Valley

By ustwo™

Category: Games / Price: \$3.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#06 – Trivia Crack (Ad Free)

By Etermax

Category: Games / Price: \$2.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#07 – Kingdom Rush Origins

By Ironhide Game Studio

Category: Games / Price: \$2.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#08 – Afterlight

By Afterlight Collective, Inc

Category: Photo & Video / Price: \$0.99

Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5.



#09 – Swype

By Nuance Communications

Category: Utilities / Price: \$0.99

Requires iOS 8.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.



#10 – Sleep Cycle alarm clock

By Northcube AB

Category: Health & Fitness / Price: \$0.99

Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch.

This app is optimized for iPhone 5, iPhone 6, and iPhone 6 Plus.

TOP Paid Apps



#01 – Pixelmator

By Pixelmator Team

Category: Graphics & Design / Price: \$14.99

Compatibility: OS X 10.9.5 or later, 64-bit processor



#02 – Civilization: Beyond Earth

By Aspyr Media, Inc.

Category: Games / Price: \$41.99

Compatibility: OS X 10.10 or later



#03 – Notability

By Ginger Labs

Category: Productivity / Price: \$4.99

Compatibility: OS X 10.9 or later, 64-bit processor



#04 – GarageBand

By Apple

Category: Music / Price: \$4.99

Compatibility: OS X 10.9 or later



#05 – Disk Doctor

By FIPLAB Ltd

Category: Utilities / Price: \$2.99

Compatibility: OS X 10.7.3 or later, 64-bit processor



#06 – OS X Server

By Apple

Category: Utilities / Price: \$19.99

Compatibility: OS X 10.9.5 or later



#07 – Duplicate Detective

By FIPLAB Ltd

Category: Utilities / Price: \$1.99

Compatibility: OS X 10.7 or later, 64-bit processor



#08 – Civilization V: Campaign Edition

By Aspyr Media, Inc.

Category: Games / Price: \$9.99

Compatibility: OS X 10.7.5 or later



#09 – Deliveries: a package tracker

By Junecloud LLC

Category: Utilities / Price: \$4.99

Compatibility: OS X 10.10 or later, 64-bit processor



#10 – 1Password

By AgileBits Inc.

Category: Productivity / Price: \$34.99

Compatibility: OS X 10.8.4 or later, 64-bit processor

Mac OS X

SCIENCE



HOTTER, WEIRDER: HOW CLIMATE HAS CHANGED EARTH



In the more than two decades since world leaders first got together to try to solve global warming, life on Earth has changed, not just the climate. It's gotten hotter, more polluted with heat-trapping gases, more crowded and just downright wilder.

The numbers are stark. Carbon dioxide emissions: up 60 percent. Global temperature:

up six-tenths of a degree. Population: up 1.7 billion people. Sea level: up 3 inches. U.S. extreme weather: up 30 percent. Ice sheets in Greenland and Antarctica: down 4.9 trillion tons of ice.

"Simply put, we are rapidly remaking the planet and beginning to suffer the consequences," says Michael Oppenheimer, professor of geosciences



and international affairs at Princeton University.

Diplomats from more than 190 nations opened talks Monday at a United Nations global warming conference in Lima, Peru, to pave the way for an international treaty they hope to forge next year.

To see how much the globe has changed since the first such international conference - the

Earth Summit in Rio de Janeiro in 1992 - The Associated Press scoured databases from around the world. The analysis, which looked at data since 1983, concentrated on 10-year intervals ending in 1992 and 2013. This is because scientists say single years can be misleading and longer trends are more telling.

Our changing world by the numbers:



WILD WEATHER

Since 1992, there have been more than 6,600 major climate, weather and water disasters worldwide, causing more than \$1.6 trillion in damage and killing more than 600,000 people, according to the Centre for Research on the Epidemiology of Disasters in Belgium, which tracks the world's catastrophes.

While climate-related, not all can be blamed on man-made warming or climate change. Still, extreme weather has noticeably increased over the years, says Debby Sapir, who runs the center and its database. From 1983 to 1992 the world averaged 147 climate, water and weather disasters each year. Over the past 10 years, that number has jumped to an average 306 a year.

In the United States, an index of climate extremes - hot and cold, wet and dry - kept by the National Oceanic and Atmospheric Administration has jumped 30 percent from 1992 to 2013, not counting hurricanes, based on 10-year averages.

NOAA also keeps track of U.S. weather disasters that cost more than \$1 billion, when adjusted for inflation. Since 1992, there have been 136 such billion-dollar events.

Worldwide, the 10-year average for weather-related losses adjusted for inflation was \$30 billion a year from 1983-92, according to insurance giant Swiss Re. From 2004 to 2013, the cost was more than three times that on average, or \$131 billion a year.

Sapir and others say it would be wrong to pin all, or even most, of these increases on climate







change alone. Population and poverty are major factors, too. But they note a trend of growing extremes and more disasters, and that fits with what scientists have long said about global warming.

It's this increase that's "far scarier" than the simple rise in temperatures, University of Illinois climate scientist Donald Wuebbles says.

TEMPERATURE

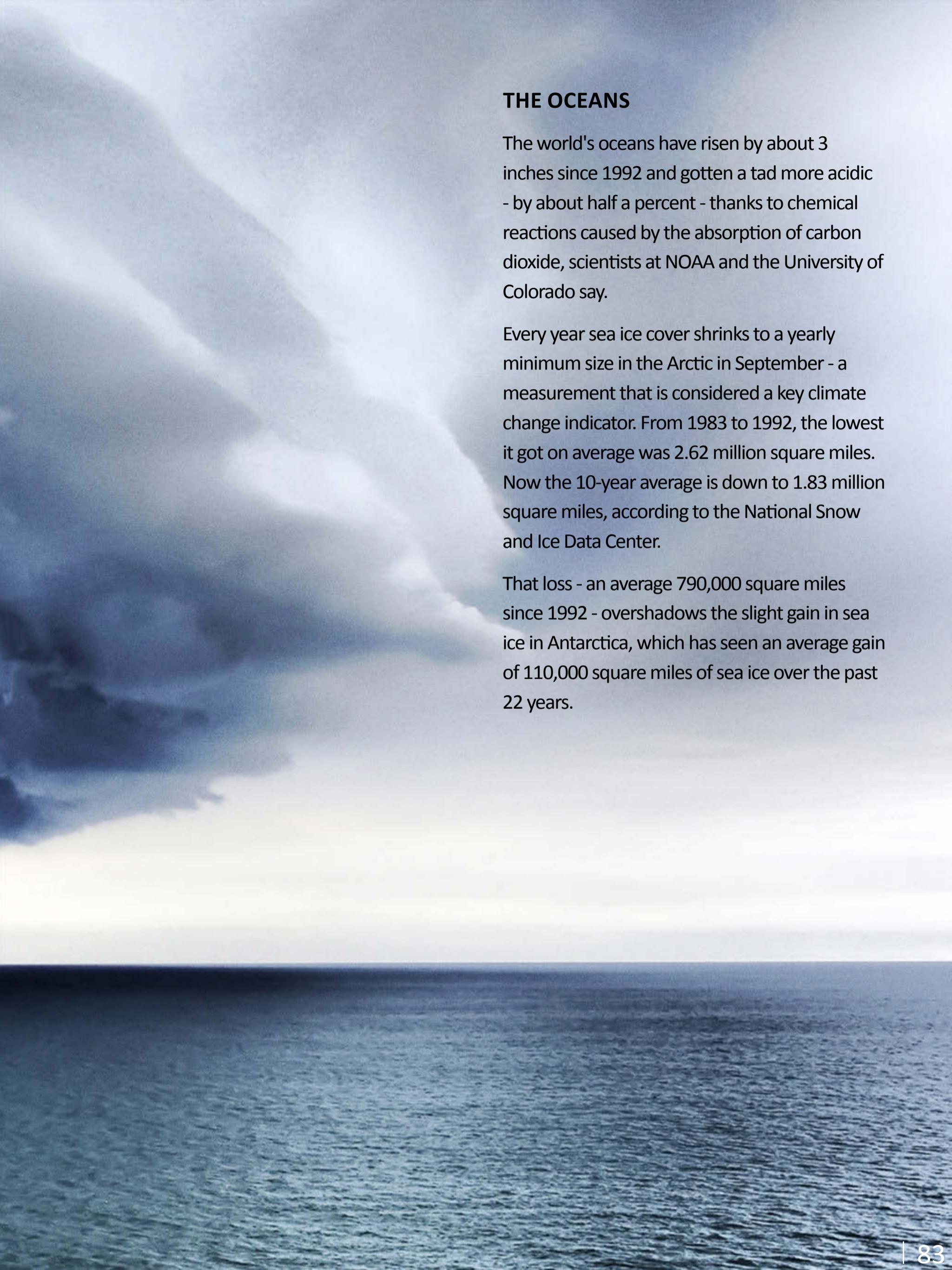
It's almost a sure thing that 2014 will go down as the hottest year in 135 years of record keeping, meteorologists at NOAA's National Climatic Data Center say. If so, this will be the sixth time since 1992 that the world set or tied a new annual record for the warmest year.

The globe has broken six monthly heat records in 2014 and 47 since 1992. The last monthly cold record set was in 1916.

So the average annual temperature for 2014 is on track to be about 58.2 degrees (14.6 degrees Celsius), compared with 57.4 degrees (14.1 degrees Celsius) in 1992. The past 10 years have averaged a shade below 58.1 degrees (nearly 14.5 degrees Celsius) - six-tenths of a degree warmer than the average between 1983 and 1992.





A wide-angle photograph of a vast ocean under a dramatic sky. The upper half of the image is filled with heavy, dark, grey clouds, with a bright, overexposed area in the center where the sun is partially visible. The horizon line is in the lower third of the image, showing a dark, choppy ocean.

THE OCEANS

The world's oceans have risen by about 3 inches since 1992 and gotten a tad more acidic - by about half a percent - thanks to chemical reactions caused by the absorption of carbon dioxide, scientists at NOAA and the University of Colorado say.

Every year sea ice cover shrinks to a yearly minimum size in the Arctic in September - a measurement that is considered a key climate change indicator. From 1983 to 1992, the lowest it got on average was 2.62 million square miles. Now the 10-year average is down to 1.83 million square miles, according to the National Snow and Ice Data Center.

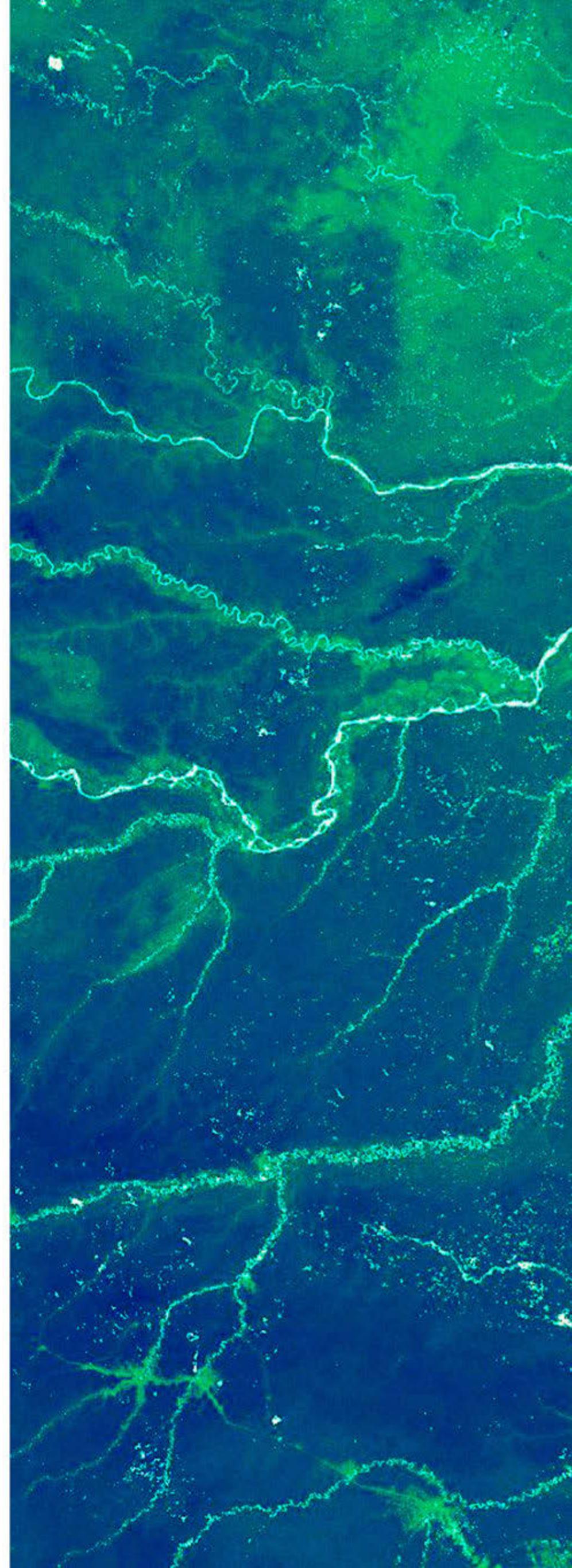
That loss - an average 790,000 square miles since 1992 - overshadows the slight gain in sea ice in Antarctica, which has seen an average gain of 110,000 square miles of sea ice over the past 22 years.

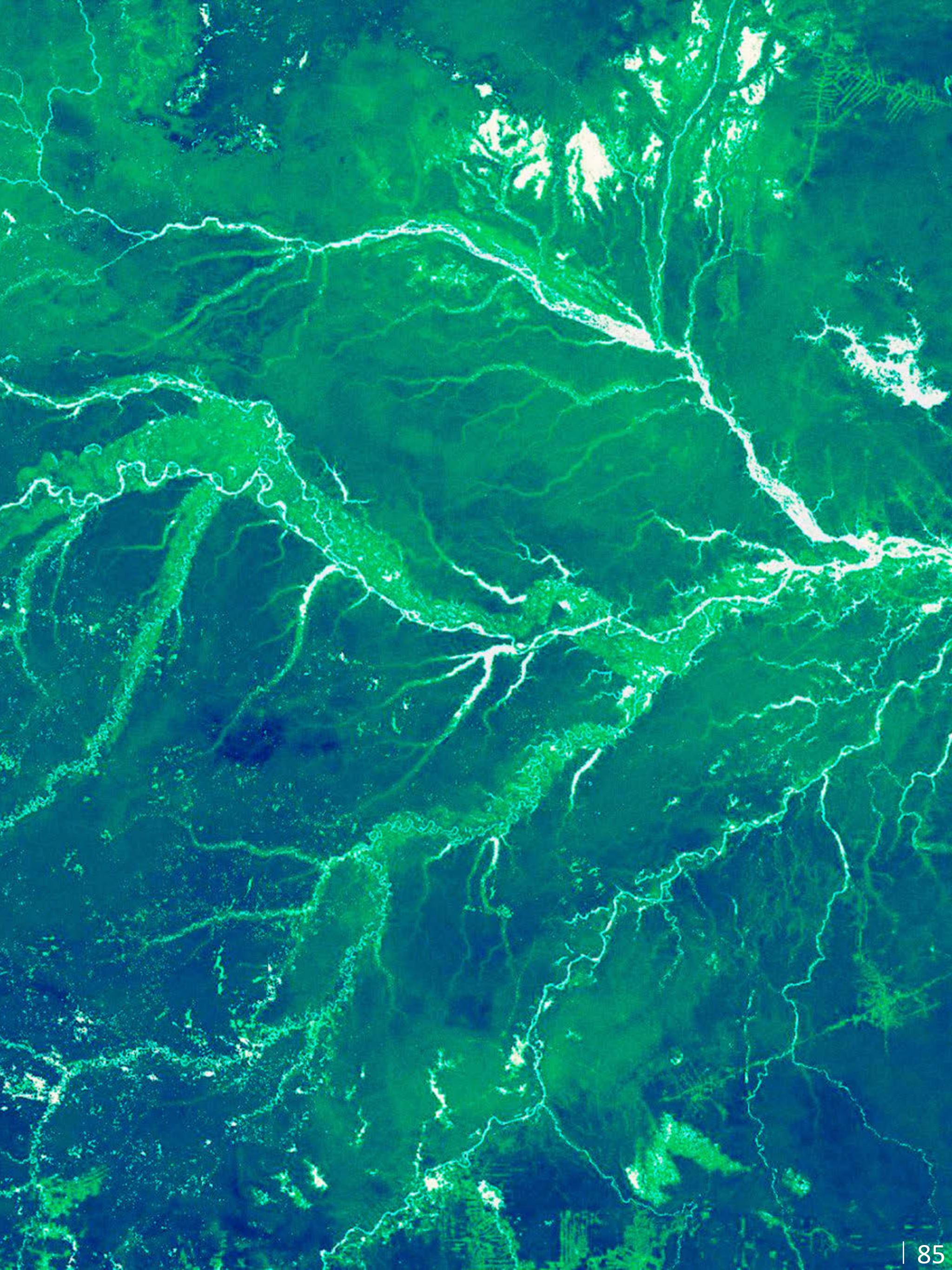
ON LAND

The world's population in 1992 was 5.46 billion. Today, it's nearly a third higher, at 7.18 billion. That means more carbon pollution and more people who could be vulnerable to global warming.

The effects of climate change can be seen in harsher fire seasons. Wildfires in the western United States burned an average of 2.7 million acres each year between 1983 and 1992; now that's up to 7.3 million acres from 1994 to 2013, according to the National Interagency Fire Center.

And some of the biggest climate change effects on land are near the poles, where people don't often see them. From 1992 to 2011, Greenland's ice sheet lost 3.35 trillion tons of ice, according to calculations made by scientists using measurements from NASA's GRACE satellite. Antarctica lost 1.56 trillion tons of ice over the same period.



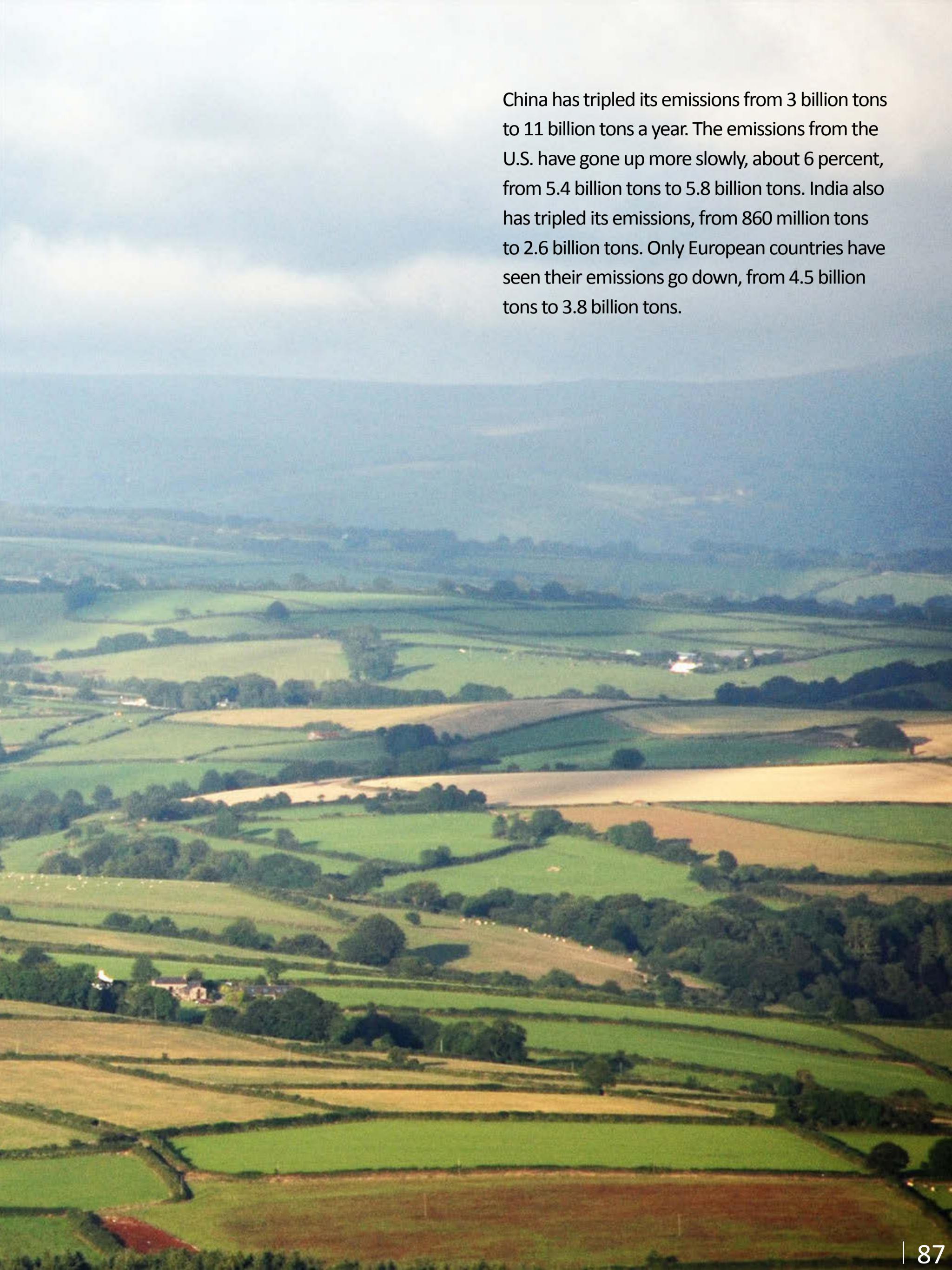


AIR

Scientists simply point to greenhouse gas emissions, mostly carbon dioxide, that form a heat-trapping blanket in our air.

There's no need to average the yearly amount of carbon dioxide pollution: It has increased steadily, by 60 percent, from 1992 to 2013. In 1992, the world spewed 24.9 billion tons of carbon dioxide; now it is 39.8 billion, according to the Global Carbon Project, an international consortium.

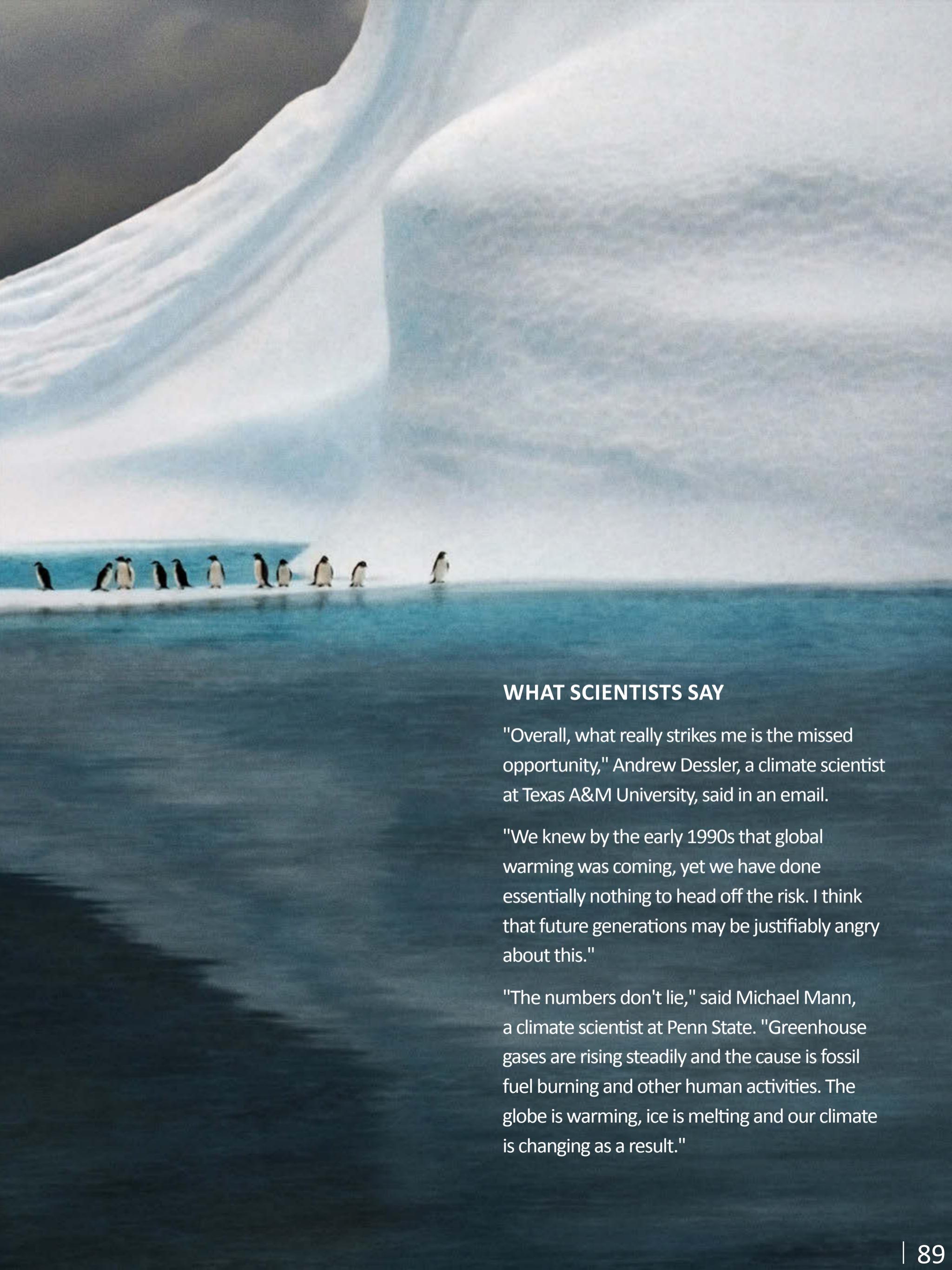


A wide-angle photograph of a rural landscape. The foreground is filled with numerous green and yellowish-brown fields, some with small clusters of trees. In the middle ground, a line of houses is visible. The background consists of rolling hills that fade into a hazy blue sky.

China has tripled its emissions from 3 billion tons to 11 billion tons a year. The emissions from the U.S. have gone up more slowly, about 6 percent, from 5.4 billion tons to 5.8 billion tons. India also has tripled its emissions, from 860 million tons to 2.6 billion tons. Only European countries have seen their emissions go down, from 4.5 billion tons to 3.8 billion tons.



Image: Antrey



WHAT SCIENTISTS SAY

"Overall, what really strikes me is the missed opportunity," Andrew Dessler, a climate scientist at Texas A&M University, said in an email.

"We knew by the early 1990s that global warming was coming, yet we have done essentially nothing to head off the risk. I think that future generations may be justifiably angry about this."

"The numbers don't lie," said Michael Mann, a climate scientist at Penn State. "Greenhouse gases are rising steadily and the cause is fossil fuel burning and other human activities. The globe is warming, ice is melting and our climate is changing as a result."

iTunes

Review



Trailer

Movies
& TV Shows



The November Man

Based on Bill Granger's novel *There Are No Spies*, this spy action thriller charts the emergence from retirement of the highly trained and extremely dangerous ex-CIA agent Peter Devereaux (Pierce Brosnan). His is a very personal mission, in which he looks to protect a valuable witness who could expose the truth behind a conspiracy dating back decades.

[iTunes Preview](#)



by Roger Donaldson
Genre: Action & Adventure
Released: 2014
Price: \$14.99



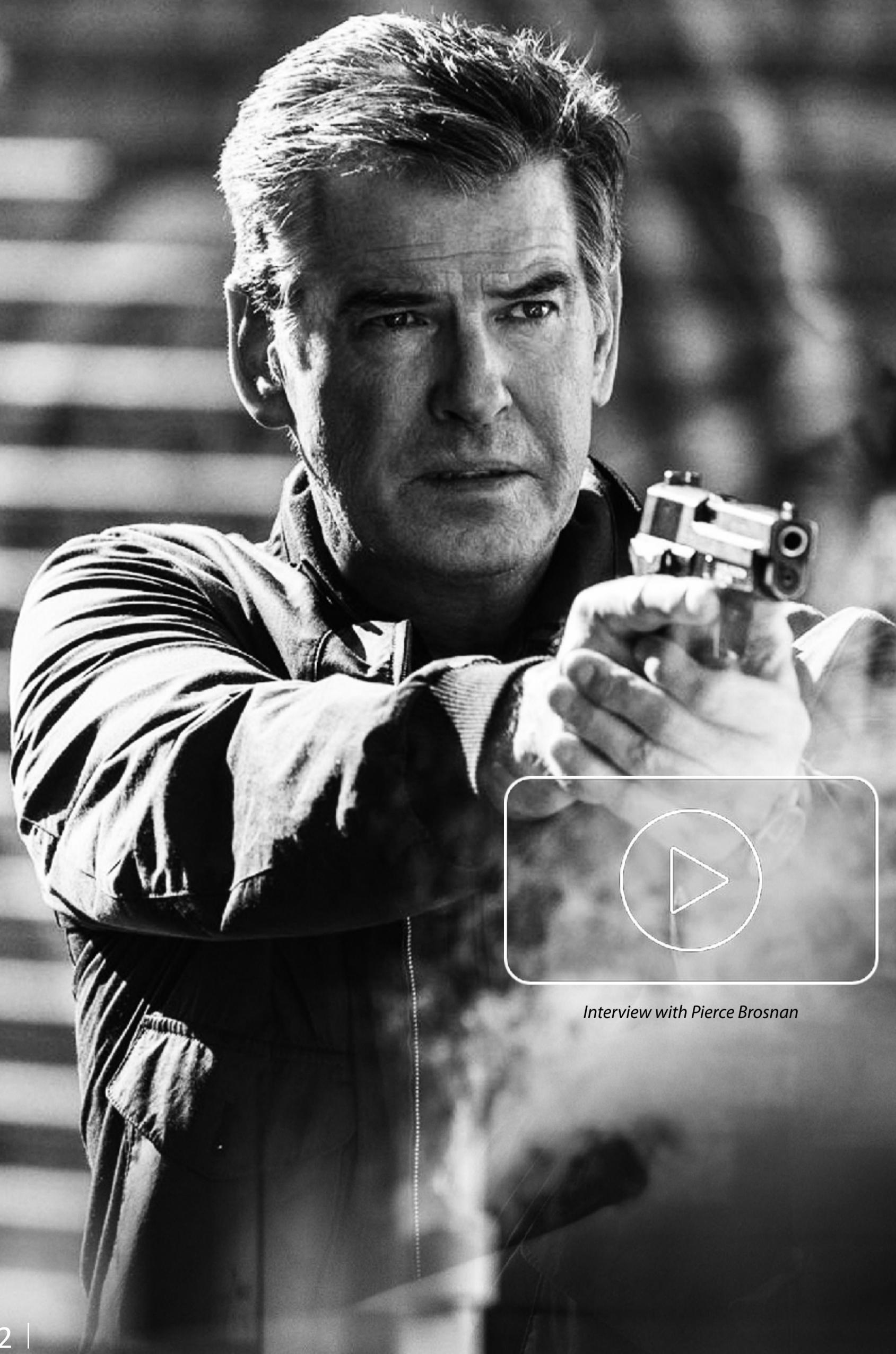
136 Ratings

Rotten Tomatoes
 34%

FIVE FACTS:

1. *There Are No Spies* is canonically the seventh installment in *The November Man* novel series, published in 1987.
2. Other cast members include Luke Bracey, Olga Kurylenko, Eliza Taylor and Caterina Scorsone.
3. Brosnan **was rumored to be considering an adaptation of *The November Man* as long ago as 2005**, following his retirement from the role of James Bond.
4. Kurylenko rose to fame by playing Bond girl Camille Montes in 2008's *Quantum of Solace*.
5. Brosnan **has already announced that a sequel is in the works**.

See more in
[iTunes](#)



Interview with Pierce Brosnan



Dawn of the Planet of the Apes

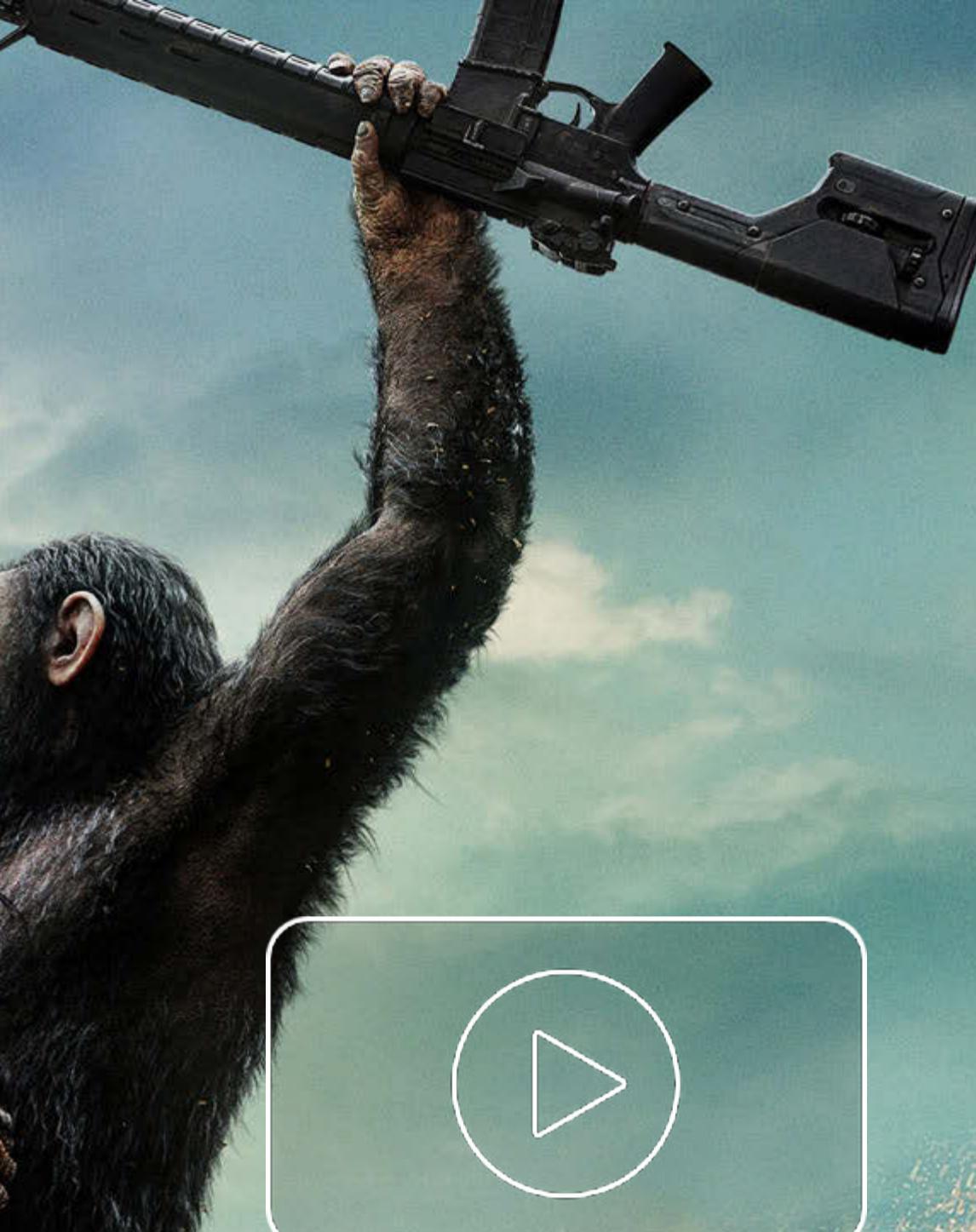
The sequel to the film that rebooted the Planet of the Apes series - 2011's *Rise of the Planet of the Apes* - staggeringly packs even more allegorical power than its predecessor. It sees another astounding performance by Andy Serkis as ape leader Caesar, as a decimated human race finds itself in an uneasy coexistence with an emergent simian society in a dystopian San Francisco.

FIVE FACTS:

1. The Planet of the Apes media franchise began with French author Pierre Boulle's 1963 novel *La Planète des Singes*.
2. It was subsequently translated into English as both *Planet of the Apes* and *Monkey Planet*.
3. The first film adaptation was the critically and commercially successful *Planet of the Apes* in 1968.
4. The new movie was described - **by Variety writer Guy Lodge** - as "an altogether smashing sequel".
5. It grossed **\$708,277,695 at the worldwide box office**.



Rotten Tomatoes
CERTIFIED FRESH
91 %



[iTunes Preview](#)



by Matt Reeves
Genre: Action & Adventure
Released: 2014
Price: \$14.99

★★★★★
559 Ratings

Trailer





Interview with Andy Serkis



iTunes

Review

Music



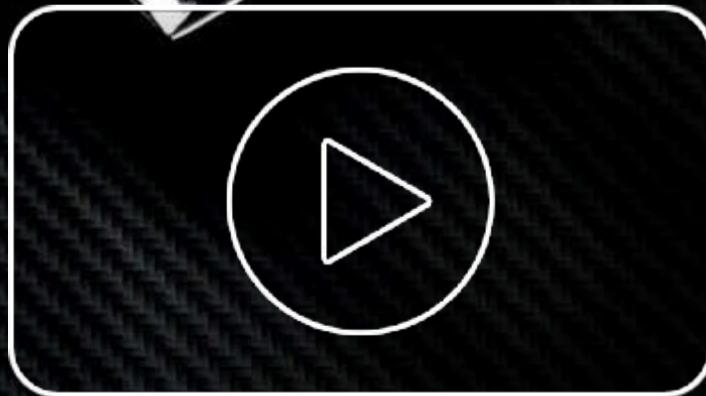


[iTunes Preview](#)



Genre: Hip-Hop/Rap
Released: Nov 24, 2014
28 Songs
Price: \$15.99

★★★★★
2693 Ratings



Guts Over Fear

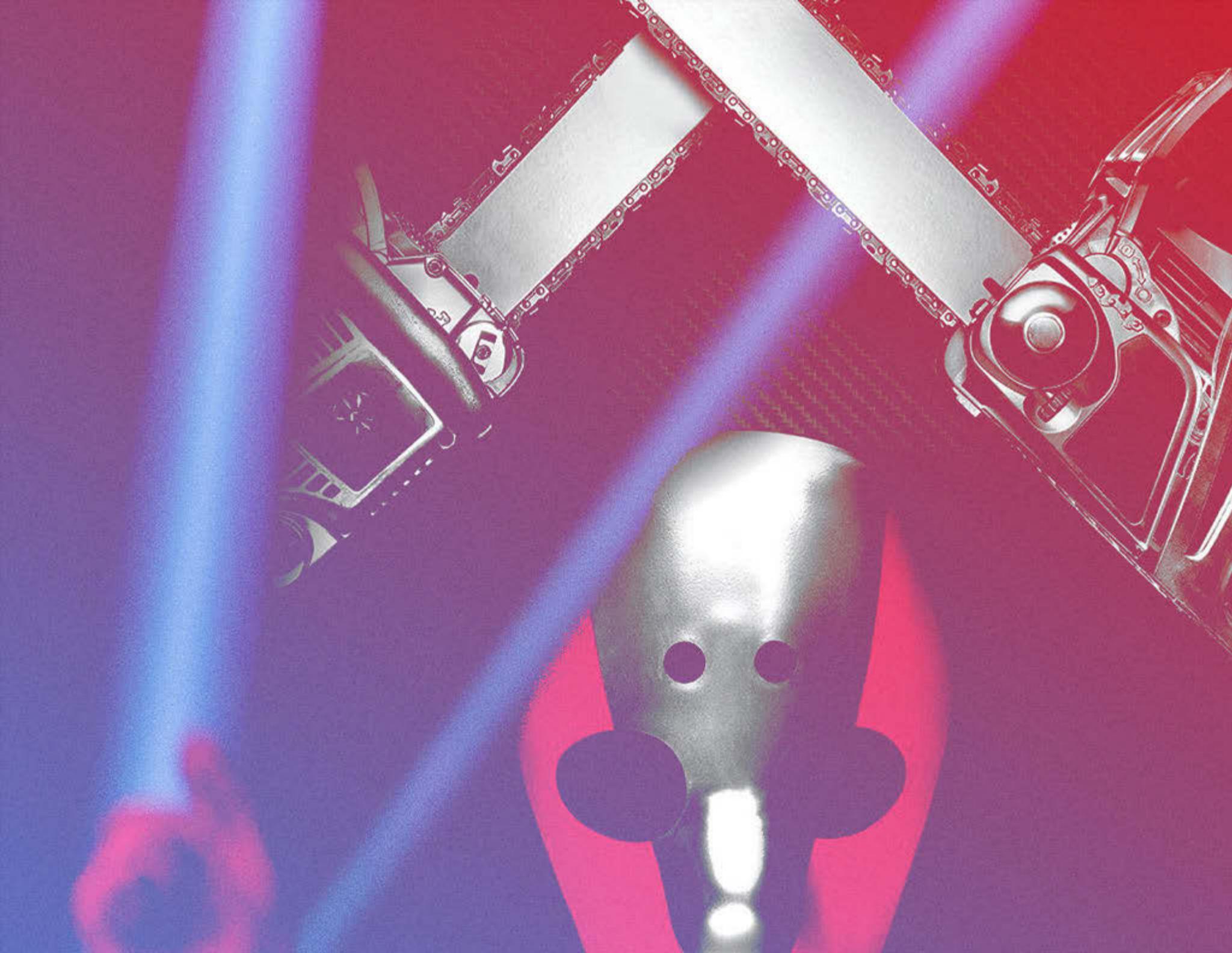
SHADYXV

Various Artists

Released in honor of the 15th anniversary of Eminem's Shady Records label, SHADYXV showcases a combination of greatest hits and new material from the likes of Slaughterhouse, Bad Meets Evil, D12 and Yelawolf, as well as the label's founder, Marshall Bruce Mathers III himself. The album features all past and current members of the label.

FIVE FACTS:

1. Eminem **was the best-selling artist of the 2000s in the United States.**
2. Shady Records was founded by Eminem and his manager Paul Rosenberg in 1999.
3. It followed the critical and commercial success of the former's breakthrough album, The Slim Shady LP.
4. Previous members of the label include 50 Cent, Obie Trice, Bobby Creekwater, Ca\$his and Stat Quo.
5. The album cover **depicts a black and red hockey mask designed by Cuzzalo Ink under two crossed chainsaws.**



APP
MAG



Y'all Ready Know

Listen (Deluxe Version)

David Guetta

The ubiquitous French DJ and electro music producer releases a studio album for the first time since 2011's commercially successful *Nothing but the Beat*, and it's unquestionably a more personal effort, following his divorce from his wife of 22 years, the socialite Cathy Guetta. It also features a host of collaborations from across pop, R&B, alternative rock and hip hop.

FIVE FACTS:

1. Pierre David Guetta was born on 7 November, 1967.
2. He spent the 1980s and 1990s as a DJ at nightclubs.
3. He released his debut album, *Just a Little More Love*, in 2002.
4. In 2013, *Billboard* declared his 2009 collaboration with Kelly Rowland, "When Love Takes Over", **the number one dance-pop collaboration of all time**.
5. Guetta **has observed of his approach to Listen**: "Until today I was doing lots of songs about happiness and love and sexiness and just having a party – it was basically my life, you know? And lately, my personal life has been a little more difficult, so it reflects also on the album."





iTunes Preview



Genre: Dance

Released: Nov 24, 2014

18 Songs

Price: \$11.99



550 Ratings



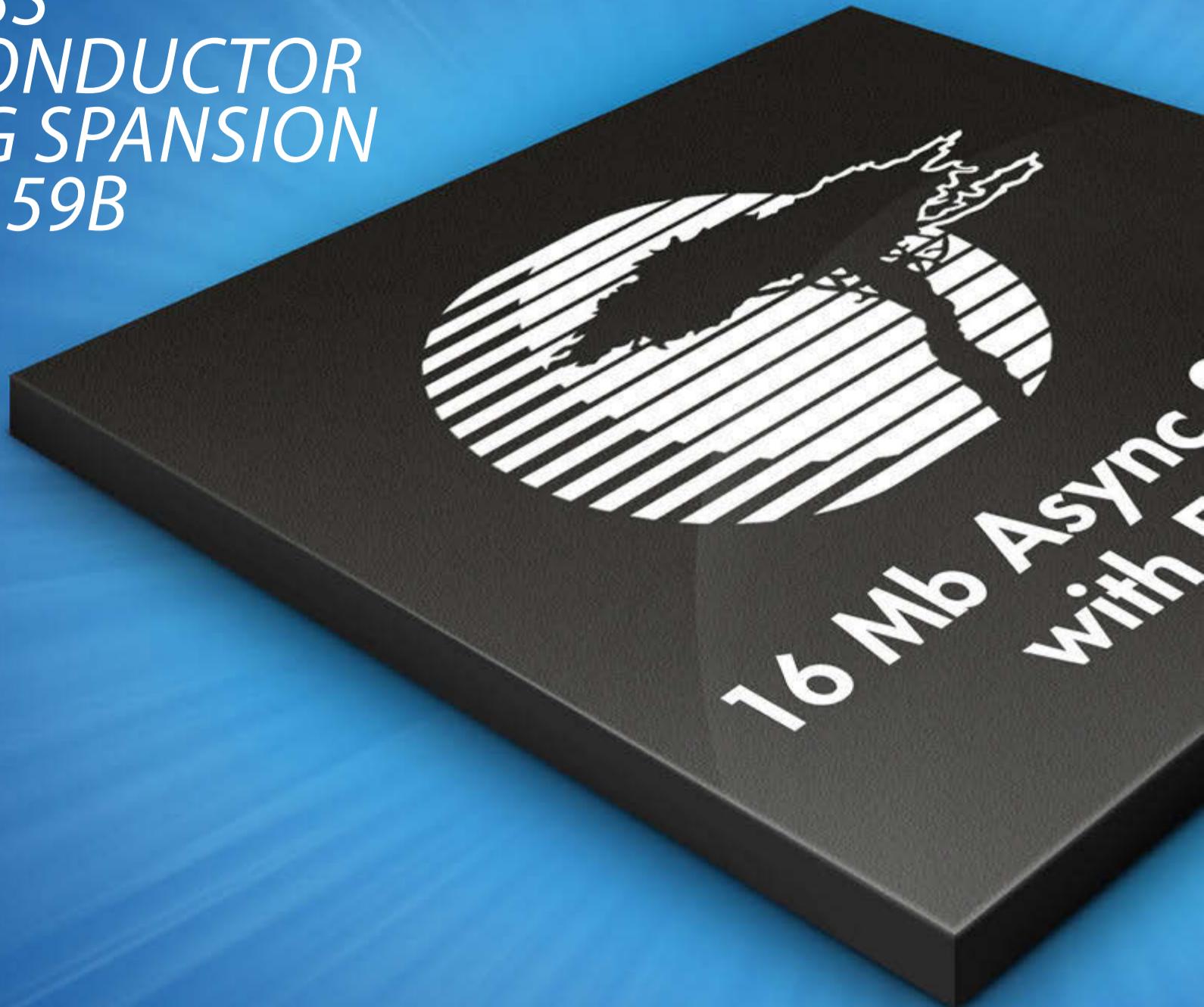
Lovers On The Sun





Dangerous

CYPRESS SEMICONDUCTOR BUYING SPANSION FOR \$1.59B



Chip maker Cypress Semiconductor is buying flash memory product maker Spansion in an all-stock deal worth \$1.59 billion.

Spansion stockholders will get 2.457 shares of Cypress stock for every Spansion share they own. Shareholders of each side will own about 50 percent of the new company, which will keep the name Cypress Semiconductor Corp.

The companies valued the deal at \$4 billion. They expect it to close in the first half of 2015, and they expect to cut annual costs by \$135 million within three years.

Cypress President and CEO T.J. Rodgers will be CEO of the combined company, which is expected to have \$2 billion in annual revenue. Spansion

Chairman Ray Bingham will be non-executive chairman.

Cypress shares rose 82 cents, or 7.9 percent, at \$11.25 in aftermarket trading. Spansion Inc. shares jumped \$3.09, or 13.5 percent, to \$25.94.

Spansion is based in Sunnyvale, California, and it had \$972 million in revenue in 2013. The company filed for Chapter 11 bankruptcy protection in early 2009 as the global economic slump hurt electronics sales, but it reorganized and its shares were listed on the New York Stock Exchange again in mid-2010.

Cypress is based in San Jose, California, and it had \$723 million in revenue in 2013.



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TOP 10 SONGS

BLANK SPACE

TAYLOR SWIFT

THE HANGING TREE

JAMES NEWTON HOWARD

THE BLOWER'S DAUGHTER

(THE VOICE PERFORMANCE)

MATT McANDREW

TAKE ME TO CHURCH

HOZIER

UPTOWN FUNK (FEAT. BRUNO MARS)

MARK RONSON

LIPS ARE MOVIN

MEGHAN TRAINOR

JEALOUS

NICK JONAS

I'M NOT THE ONLY ONE

SAM SMITH

THE HEART WANTS WHAT IT WANTS

SELENA GOMEZ

SOMEONE LIKE YOU

(THE VOICE PERFORMANCE)

DAMIEN





TOP 10 ALBUMS

ROCK OR BUST
AC/DC

THAT'S CHRISTMAS TO ME
PENTATONIX

1989
TAYLOR SWIFT

THE LONDON SESSIONS
MARY J. BLIGE

TALKING IS HARD
WALK THE MOON

HOLIDAY WISHES
IDINA MENZEL

CLASSICS
SHE & HIM

THE SPIRIT OF CHRISTMAS
MICHAEL W. SMITH

CHRISTMAS
MICHAEL BUBLÉ

**GUARDIANS OF THE GALAXY:
AWESOME MIX, VOL. 1
(ORIGINAL MOTION PICTURE SOUNDTRACK)**
VARIOUS ARTISTS





TOP 10 MUSICVIDEOS

BLANK SPACE

TAYLOR SWIFT

UPTOWN FUNK (FEAT. BRUNO MARS)

MARK RONSON

**THE HEART WANTS WHAT IT WANTS
(OFFICIAL VIDEO)**

SELENA GOMEZ

ALL ABOUT THAT BASS

MEGHAN TRAINOR

SHAKE IT OFF

TAYLOR SWIFT

MARY, DID YOU KNOW?

PENTATONIX

LIPS ARE MOVIN

MEGHAN TRAINOR

BANG BANG

(FEAT. ARIANA GRANDE & NICKI MINAJ)

JESSIE J

BOOTY (FEAT. Iggy Azalea)

JENNIFER LOPEZ

LOVE ME HARDER

ARIANA GRANDE & THE WEEKND



A close-up photograph of a man's face, partially obscured by shadow, looking intensely at a revolver he is holding. The revolver is a six-shooter with a dark wooden grip and a silver-colored barrel. The background is a solid, dark olive-green.

TOP 10 TV SHOWS

CODA

THE WALKING DEAD, SEASON 5

INTEL

REVENGE, SEASON 4

AFTERSHOCKS 605

KOURTNEY & KHLOE TAKE THE HAMPTONS, SEASON 1

CROSSED

THE WALKING DEAD, SEASON 5

GAME ON

MADAM SECRETARY, SEASON 1

FALL

ONCE UPON A TIME, SEASON 4

BURY THE RATCHET

THE REAL HOUSEWIVES OF ATLANTA, SEASON 7

THE ROAD TRIP

BROOKLYN NINE-NINE, SEASON 2

CONSUMED

THE WALKING DEAD, SEASON 5

SECRETS & LIES

STATE OF AFFAIRS, SEASON 1

WILCO

FROM LOST TO FOUND ON THE PACIFIC





TOP 10 BOOKS

DOWN AND DIRTY

LILIANA HART

YOU WERE MINE

ABBI G_LINES

UNBROKEN

LAURA HILLENBRAND

GONE GIRL

GILLIAN FLYNN

TOM CLANCY FULL FORCE AND EFFECT

MARK GREANEY

THE BURNING ROOM

MICHAEL CONNELLY

THE ESCAPE

DAVID BALDACCI

WILD

CHERYL STRAYED

CAPTIVATED BY YOU

SYLVIA DAY

HOPE TO DIE

JAMES PATTERSON

IBM HELPS YOU DONATE COMPUTER POWER TO FIGHT EBOLA

IBM has engineered a way for everyone to join the fight against Ebola - by donating processing time on their personal computers, phones or tablets to researchers.

IBM has teamed with scientists at Scripps Research Institute in southern California on a project that aims to combine the power of thousands of small computers, to each attack tiny pieces of a larger medical puzzle that might otherwise require a supercomputer to solve.

"This could let us do in months what it would otherwise take years and years to do," said Erica Ollmann Saphire, a biomedical researcher at Scripps.

The idea isn't new: Several universities and research institutes have used so-called distributed computing to tackle complex problems. For the last 10 years IBM has sponsored a project called World Community Grid, in which volunteers agree to download software that takes advantage of unused processing capacity on their devices. About 680,000 individuals in 80 countries have enrolled in the IBM program, said IBM vice president Stan Litow. They've donated computing power to help scientists at several institutions conduct research into malaria, AIDS, cancer and environmental issues.









The free downloadable software, available at <http://www.worldcommunitygrid.org>, works on Windows or Mac computers and Android mobile devices, although not Apple Inc.'s iPhone or iPad. Litow said it's designed to only use idle capacity when a device is connected to the Internet. Otherwise it isn't in use, so it won't slow other functions. On mobile devices, the program only works when the device is charging and connected to Wi-Fi, to avoid draining batteries or running up wireless charges.

Users can choose when their device connects to the grid network and whether it should happen automatically, Litow said. IBM also promises to respect volunteers' privacy and says the software can't access or alter any other files on a device.

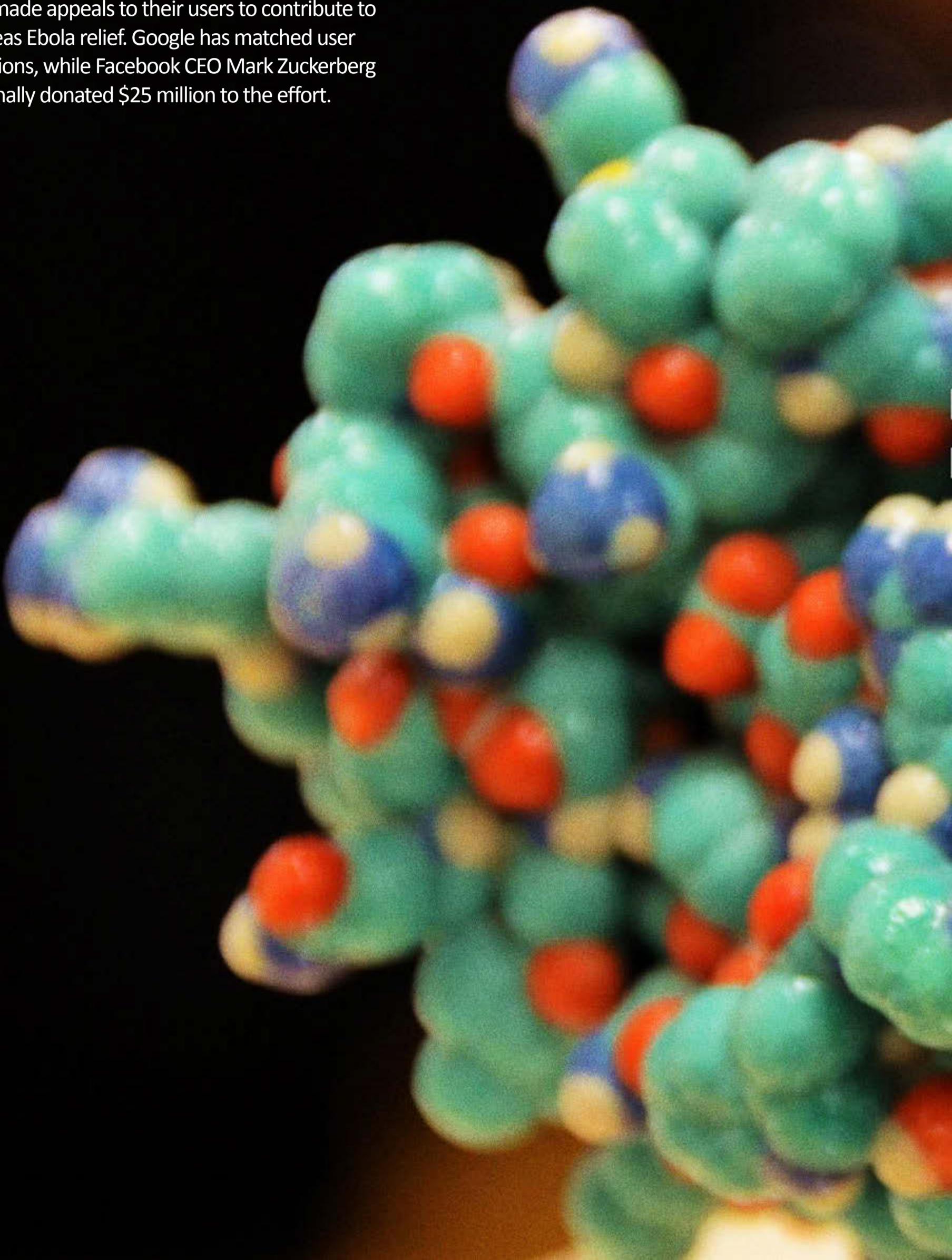
The grid computing program breaks down large computing problems into thousands of smaller tasks, assigns them to individual devices and then compiles the results. Volunteers can get progress reports on each project, and IBM promises to make the resulting data available to any interested researcher.

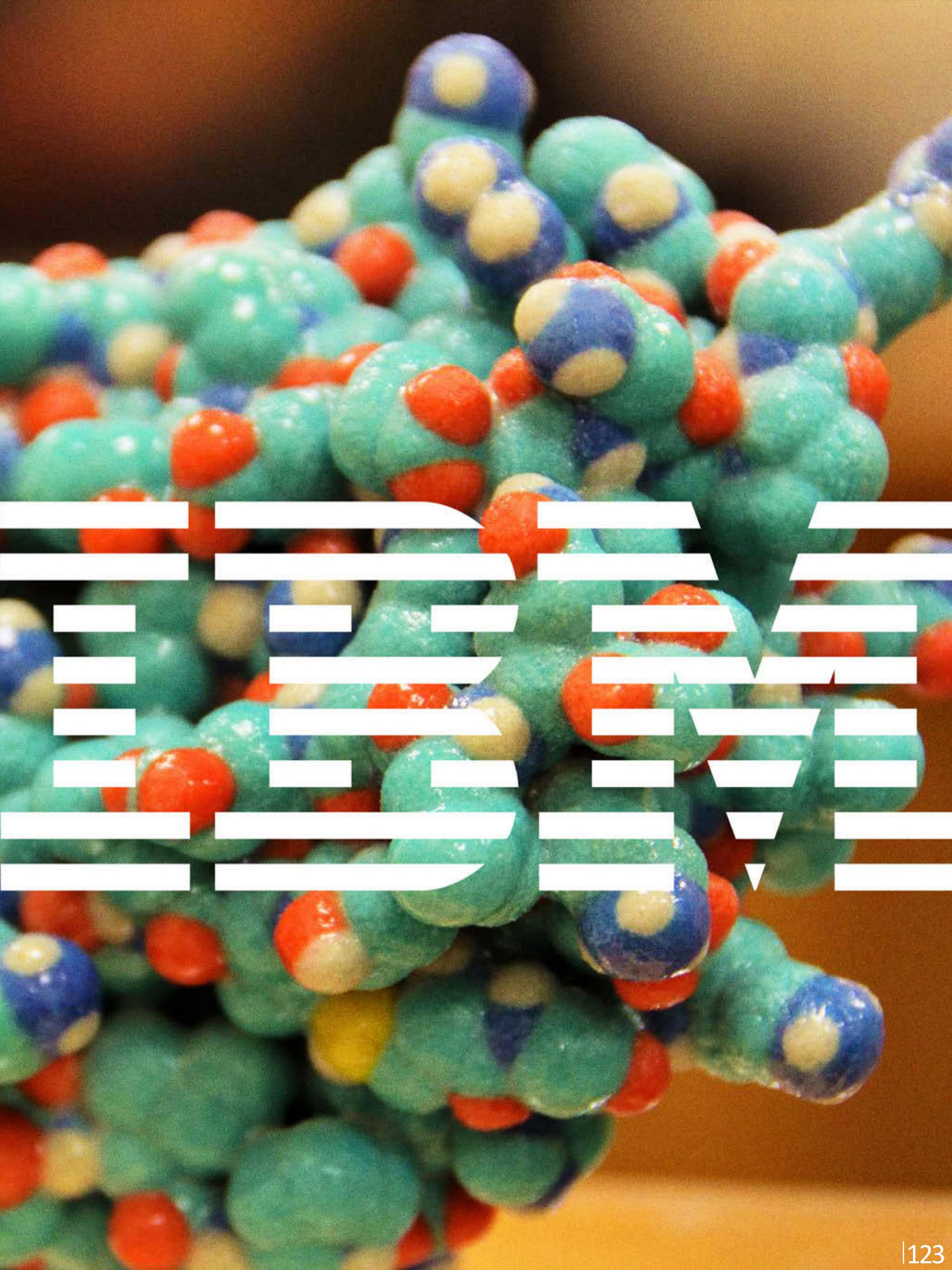
Saphire, a microbiologist who has been working on Ebola research for 11 years, said the grid project will help with two problems. She's identified vulnerable sections of the Ebola molecule, but needs help analyzing various compounds to see which might be effective in attacking the virus at those spots. She's also working on a longer-term effort to understand how Ebola proteins change shape over time.

Commercial drug companies haven't been focused on diseases like Ebola, which mostly afflict less-developed countries, Saphire said. And with federal grant budgets shrinking, she's used crowd-funding websites to raise money for lab equipment and researchers' salaries.

"Crowd funding and crowd science gives people the opportunity to invest their idle computer hours or their ten bucks, and make a difference," she said.

International Business Machines Corp., based in Armonk, New York, joins other tech companies in the Ebola effort. Facebook and Google have both made appeals to their users to contribute to overseas Ebola relief. Google has matched user donations, while Facebook CEO Mark Zuckerberg personally donated \$25 million to the effort.







HAWKING: ARTIFICIAL INTELLIGENCE COULD END MANKIND

Physicist Stephen Hawking has warned that the rise of artificial intelligence could see the human race become extinct.

In an interview with the BBC, the scientist said that while “primitive forms” of artificial intelligence have proved useful, if the technology is developed to a level that can surpass humans, it “could spell the end of the human race.”

He said that advanced artificial intelligence would “take off on its own, and redesign itself at an ever increasing rate.”

Human biological evolution will not be able to compete and “would be superseded,” he said in the interview Tuesday.

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